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MAY, 1948

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Vol. 5, No. 3



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¹ Zondek, H.: The Diseases of The Endocrine Glands, ed. 4 (Second English), Baltimore, Williams & Wilkins Company, 1944, p. 421.

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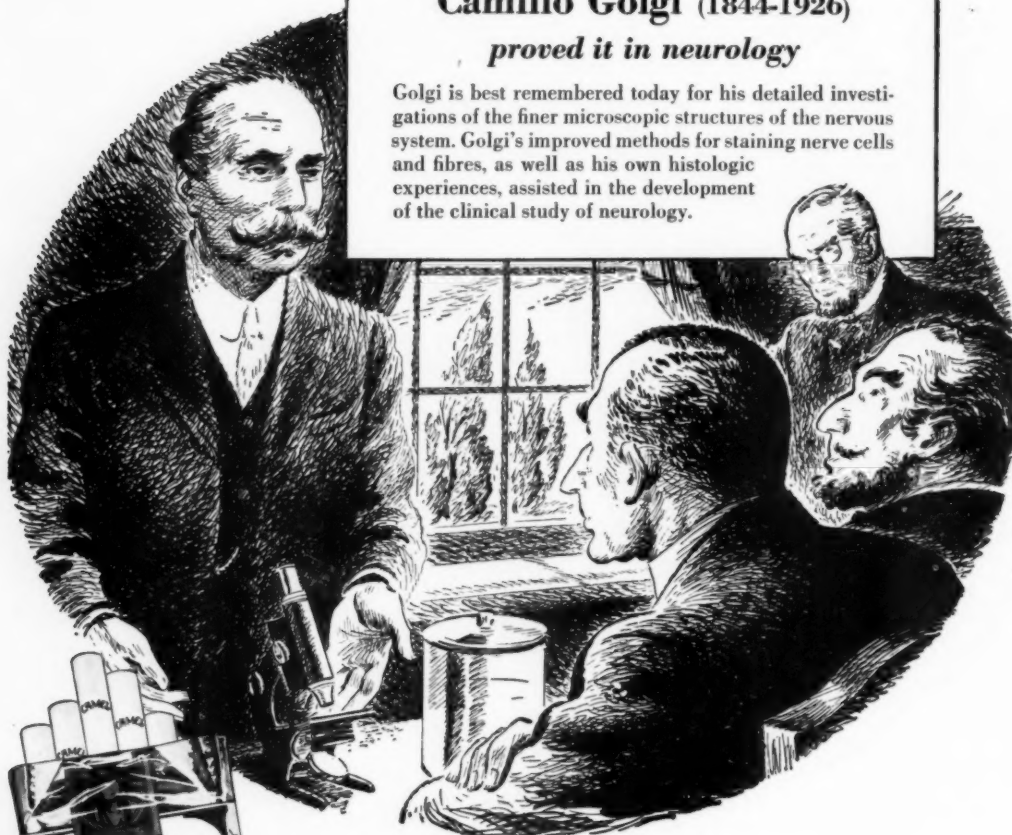


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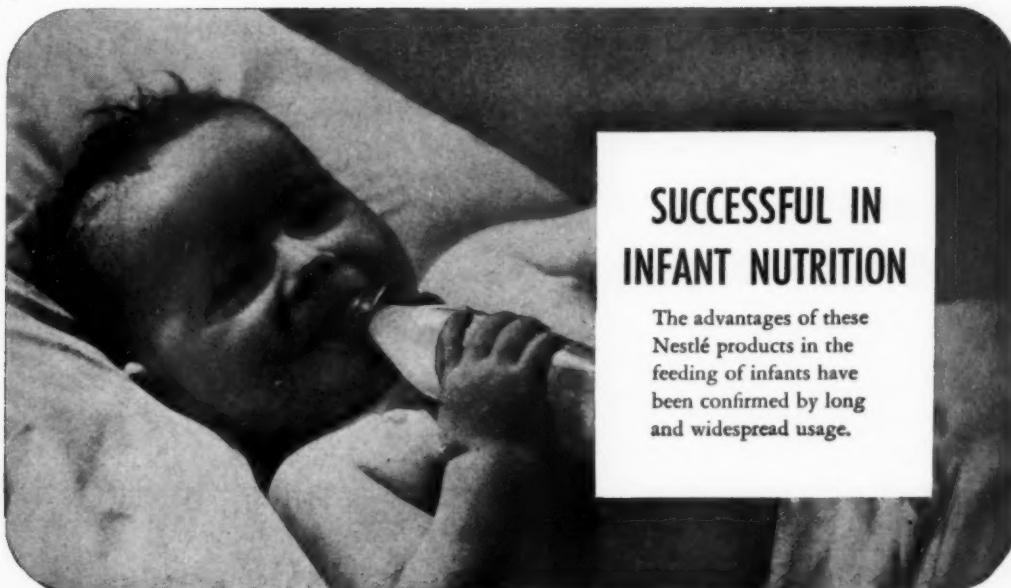
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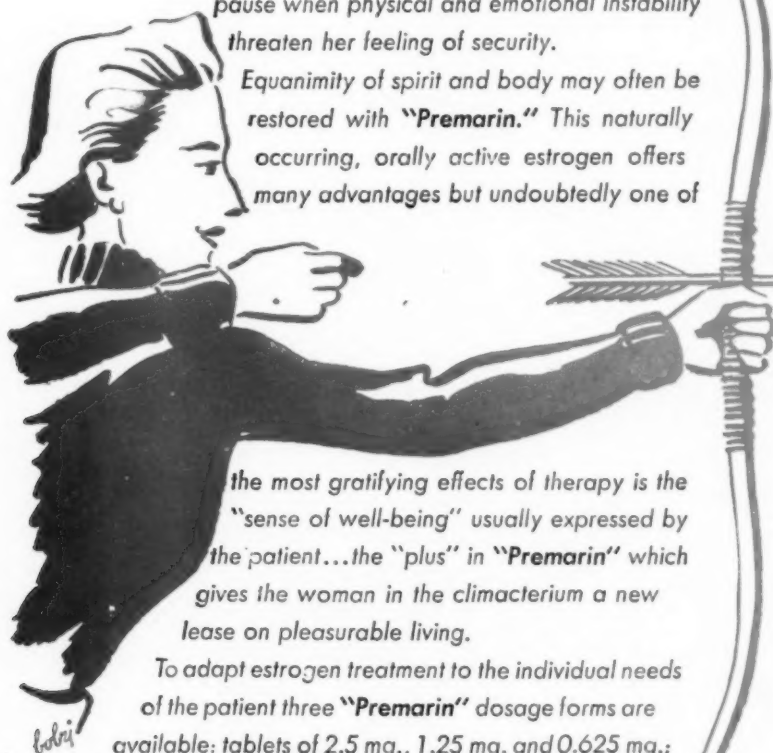
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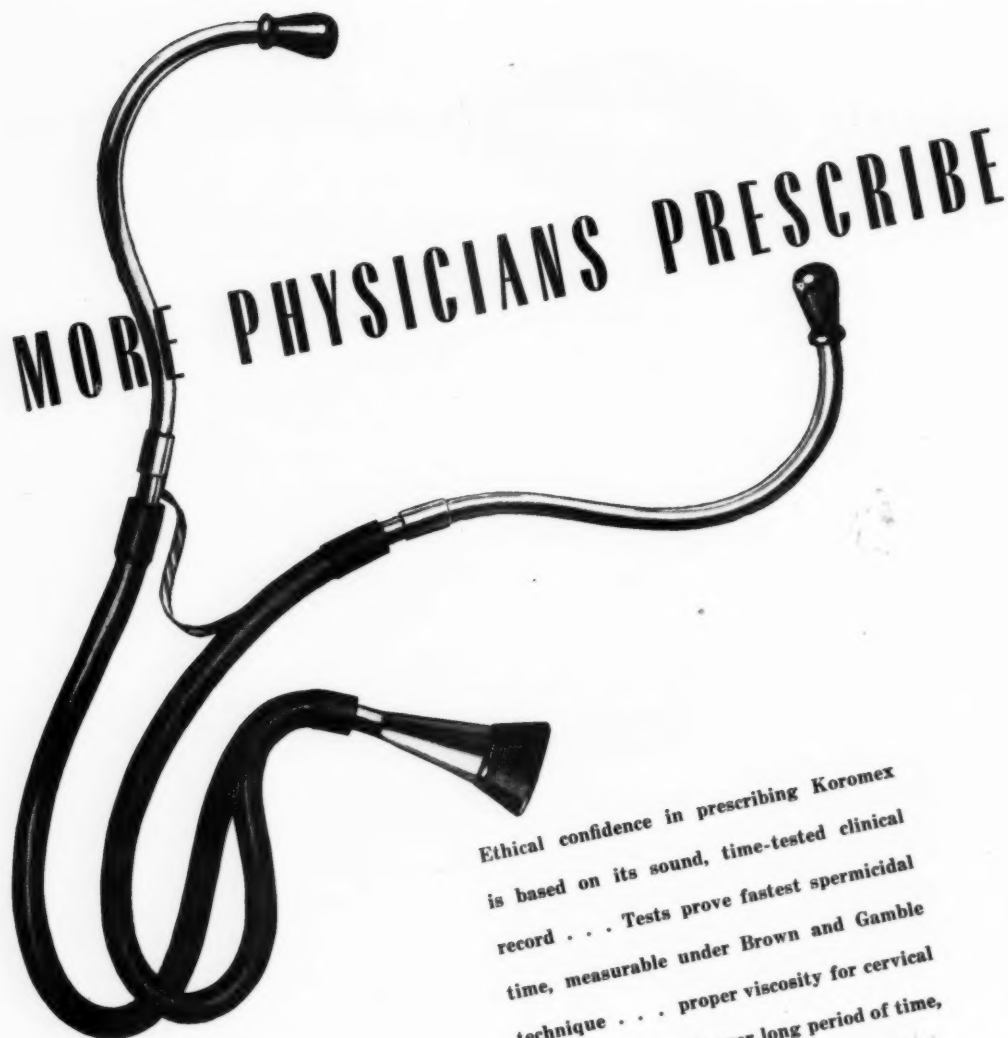


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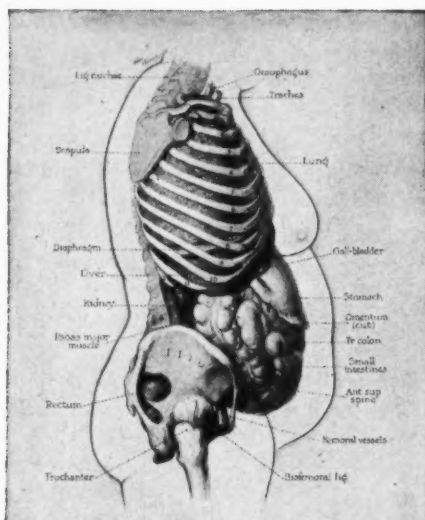
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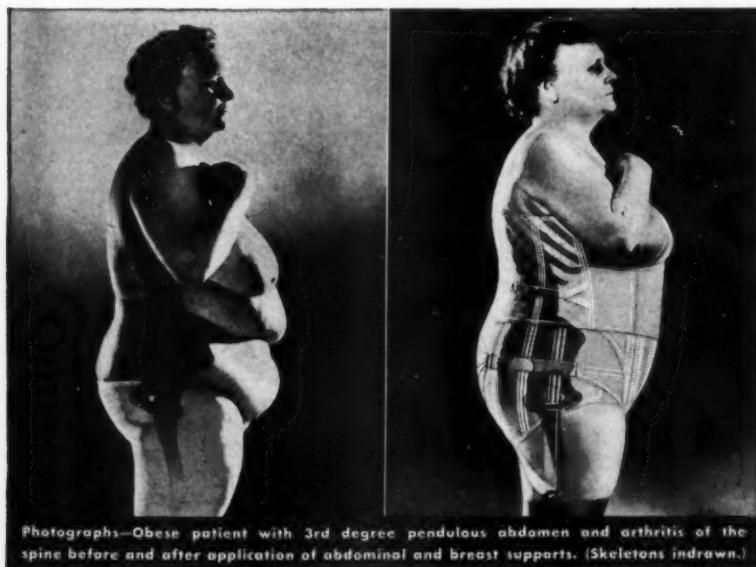
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BIBLIOGRAPHY:

1. *Texas State J. Med.* 52:683 (Apr.) 1947.
2. *J. Clin. Endo.* 3:89 (Feb.) 1943.
3. *J.A.M.A.* 134:1141 (July 26) 1947.

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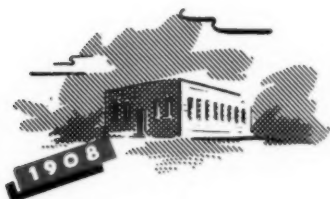


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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60.
Broc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.



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I. Dunn, H. L.: Am. J. Pub. Health 36:1412 (Dec.) 1946.

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¹ Kohn, Fischer, et al., *Am. Jour. Dis. Child.*, Sept., 1947
² Brainerd, Henry, *Jour. Ped.*, Jan., 1948

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1. Arbesman, C. E. et al. *Jl. of Allergy* 17:275, Sept. 1946.

2. Fuchs, A. M. et al. *Jl. of Allergy* 18:385, Nov. 1947.

3. Feinberg, S. M. and Friedlaender, S. *Am. J. Med. Sci.* 213:58, Jan. 1947.

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to help vanquish depression marked by "morning tiredness"

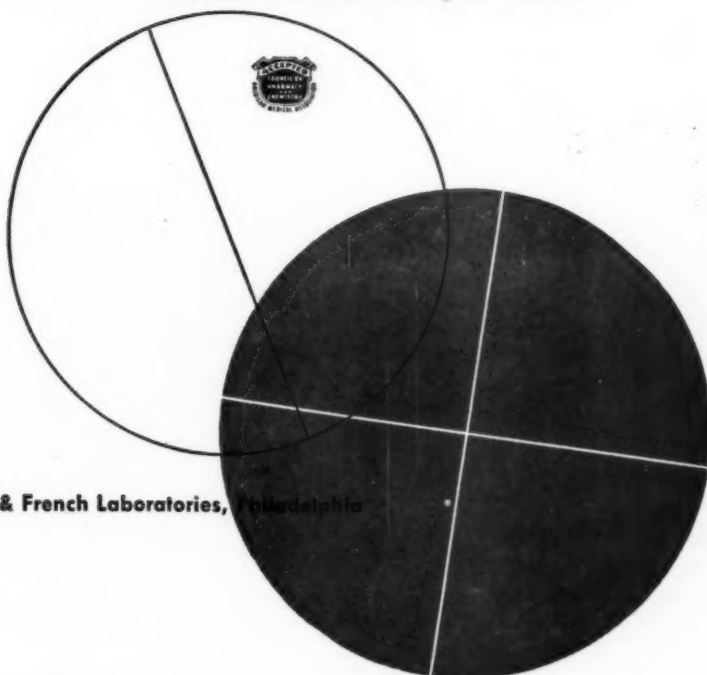
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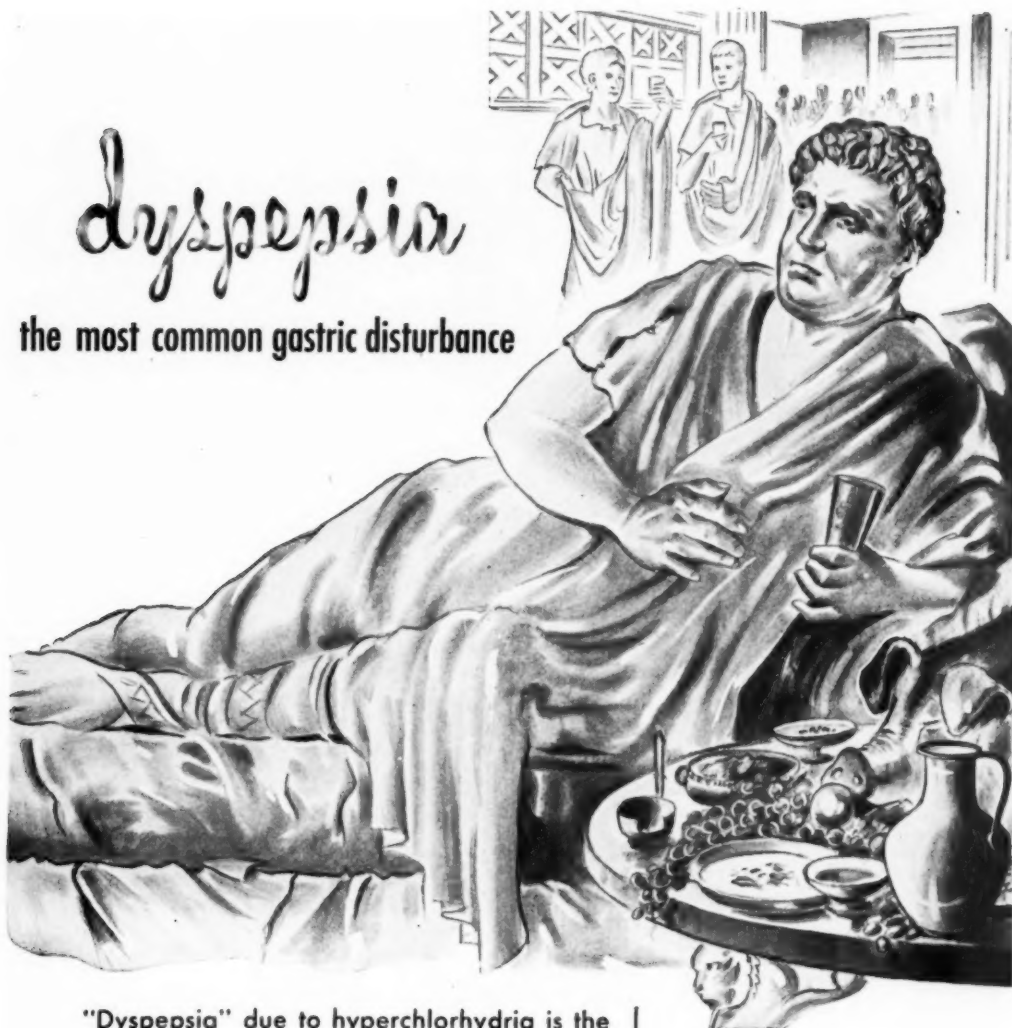
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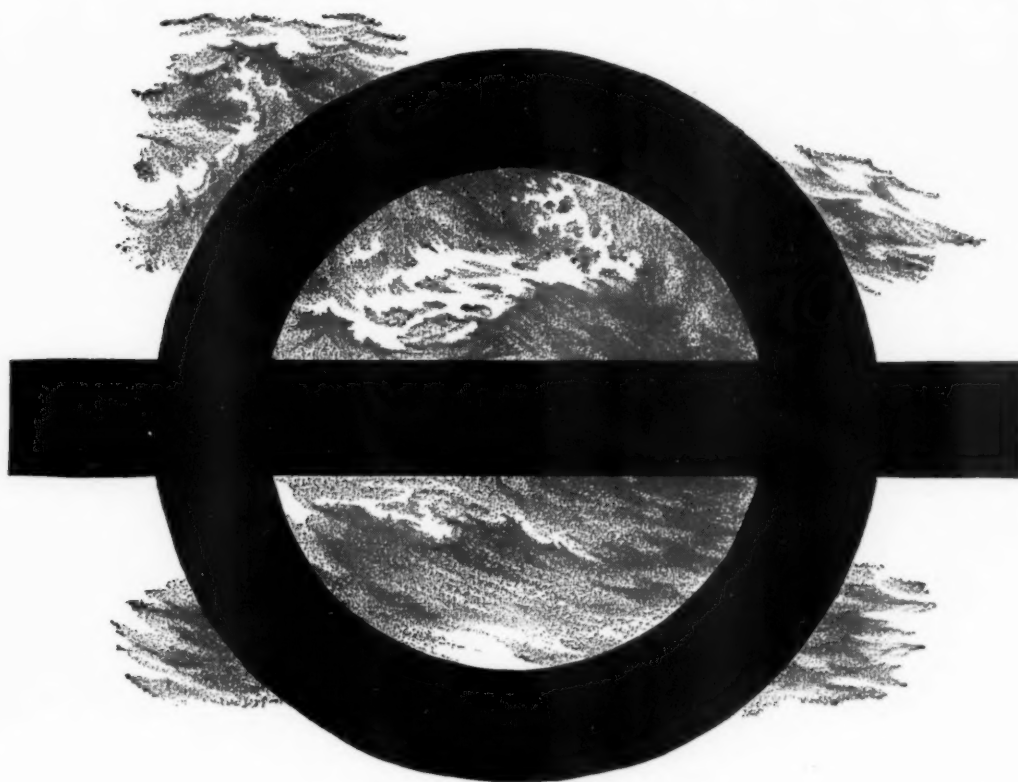
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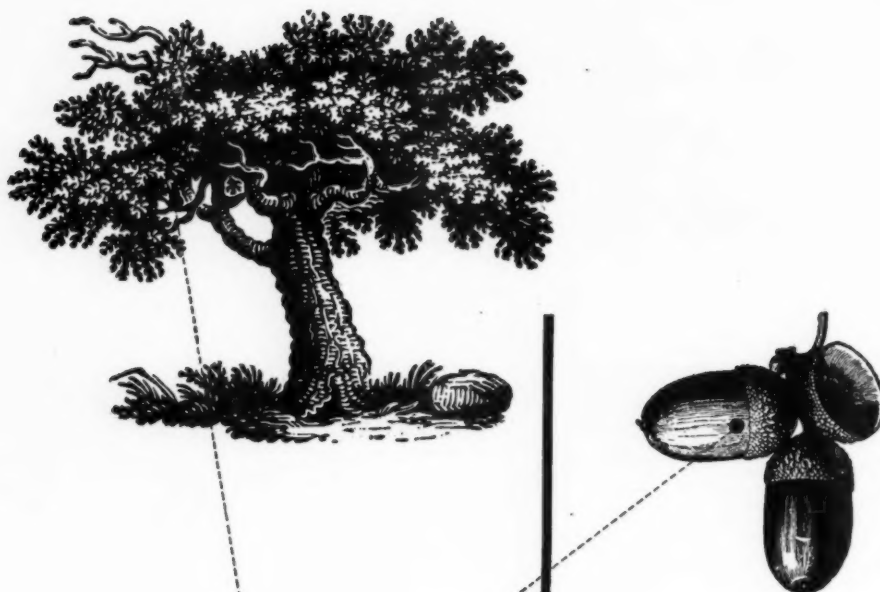
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THE MANAGEMENT OF CHRONIC BRONCHOPULMONARY SUPPURATION*

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Oakland, California

PATIENTS with chronic bronchopulmonary suppuration constitute an appreciable percentage of the practice of most thoracic specialists.

It is important to separate the various types of lesions comprising this group, i. e., bronchiectasis, secondarily infected intra-pulmonary cyst, chronic abscess, suppurative pneumonitis, and chronic purulent bronchitis, so that therapy may be intelligently planned. Accurate diagnosis becomes essential since many more of these patients than formerly are being considered for surgical intervention. It is no longer tenable practice to diagnose "chronic bronchitis" merely on the basis of cough and sputum. Further investigation is demanded.

Chronic infection means the formation of adult scar tissue, contraction of pulmonary parenchyma, and frequent alterations in the bronchi. Mixed pyogenic infections and mixed types of pathology are common. Although improvement can be hoped for on a non-surgical regimen, cure is difficult if not impossible unless the offending tissue is removed.

Diagnostically, the history and physical examination, roentgenograms with and without lipiodol visualization, and the bronchoscope are our main stand-bys. In the interest of brevity I am assuming that appropriate skin tests such as tuberculin, coccidioidin and histoplasmin have been done and properly interpreted; also that sputum examinations have been made to rule out specific infections.

A carefully taken history should cover cough, sputum, wheezing, hemoptysis, exacerbations of infection (upper respiratory or pneumonia), tho-

racic pain or pleurisy and dyspnea. It should be remembered that many patients will complain of no more than a "cigarette cough." If the patient is being considered for surgical intervention, the amount of disability as demonstrated in the history has great bearing on the decision.

The physical examination may or may not be helpful. A sunken chest and hemithoracic restriction suggests advanced disease. The constancy and type of rales may be of aid. A persisting oral wheeze is of value if heard. Clubbing of the fingers should be looked for. Search for other foci of infection should be made and the general nutrition and cardiac status of the patient observed. A postural drainage should be performed in the office.

At the second visit, the patient should bring in a 24 hour sample of sputum. Sputum cultures for pyogenic organisms are not of much practical value. Personal inspection to determine the amount, consistency and odor of the sputum gives more information than knowledge of whether a mixed flora of bacteria is present. The laboratory tests most generally helpful are a complete blood count, urinalysis and sedimentation rate.

Fluoroscopy, frontal and lateral films are essential to the preliminary interpretation of pathology. Other projections and exposures may be needed later. Bronchograms may be produced at this time, or following bronchoscopy. In most instances I perform a bronchoscopy first and follow immediately with bronchograms. Other physicians prefer to do bronchograms first. If the patient is febrile I do not instill lipiodol until the infection has regressed.

The creation of a technically excellent roentgenogram is an art which too few physicians are

* Presented at the Annual Meeting, Arizona Chapter, American College of Chest Physicians, Tucson, Arizona, May 6, 1947.

capable of, or give sufficient time to producing. It is a far cry from the mere diagnostic use of lipiodol to the meticulous production of a bronchogram in which the entire bronchial segmental anatomy on one or both sides is outlined sufficiently for surgical interpretation. Unfortunately, fully three-quarters of the bronchograms which are sent to our office have to be repeated because they are inadequate (Figure 1). A brief outline follows, covering the essentials of a good bronchogram.

Anesthesia must be adequate and extend at least to the carina. If the bronchogram is done following bronchoscopy there are no anesthetic problems. It is a matter of personal preference whether one uses the passive method or an intratracheal catheter. In almost all instances I have employed the former.

The patient is placed in the lateral recumbent position with the affected side downward. The neck is sharply flexed laterally so that the pyriform fossae are horizontal. The tongue is pulled firmly forward and from 5 to 10 cc. of unwarmed lipiodol are dripped over the base of the tongue by means of a curved metal cannula. The patient is instructed to breathe normally with, perhaps, slight accentuation on inspiration. In about 20 seconds he may be postured by raising to his elbows or to his hands and rolling his chest first anteriorly, then posteriorly. Fluoroscopy is then done and it can be readily seen which bronchial segments have not been filled. An additional 5 cc. of oil may be injected to fill the segments not visualized. Bronchial outlines are of more importance than extensive alveolar patterns. The latter serve only to obscure the field and to retain the oil for long periods of time. The prevention of a diffuse alveolar filling is based on adequate anesthesia to obtund the cough and the use of small amounts of unwarmed oil.

For correct surgical interpretation an entire one-sided filling should be done at the first sitting and the other lung mapped out at a later time. Roentgenograms should be taken in the postero-anterior, the oblique and lateral projections. The voltage should be increased so that the films are darker than usual. When the bulk of evidence shows the disease to be one-sided, films may be taken after that lung has been filled and a skeleton filling of the contralateral side performed immediately afterwards. In-

cidentally lateral projections are of no value if both sides are filled at the same time.

The bronchoscope plays an essential role both in diagnosis and in treatment. The therapeutic results of bronchoscopy will be discussed below. Diagnostically, unexpected neoplasms and foreign bodies may be discovered. The status of the bronchial mucosa may be observed. Inflammatory and scar tissue stenoses may be diagnosed and localization of pulmonary segments from which purulent sputum is coming may be determined. Observation of the relative amounts of sputum coming from each side is extremely important in cases of bilateral disease. On frequent occasions I prefer to do bronchoscopies while the patient is coughing up blood. This may be the only means of localizing the source of hemorrhage. Relative contraindications to bronchoscopy during hemorrhage are the presence of an intrapulmonary cavity and evidence of progressive parenchymal necrosis.

Therapeutically, the phases of treatment may be divided into the general care of the patient, the improvement of drainage, the use of chemotherapy and antibiotics, and surgery. These phases should be integrated; usually the first three are carried on concomitantly. The concentration of attack depends upon the illness of the patient.

Under general care of the patient may be listed the improvement of nutrition, adequate vitamin intake and treatment of other foci of infection. I have been impressed with the frequency of secondary anemias. Iron and liver mixtures may be used but if the hemoglobin is 70 per cent or below, transfusions are given.

In common with chronic suppuration elsewhere in the body the patient may be improved considerably if not cured by establishing adequate drainage. In the lungs this means primarily improvement of bronchial i. e., "internal" drainage. The best means is by a combination of postural drainage and one or more bronchoscopic aspirations. The type of postural drainage to be used depends upon the illness of the patient and upon the location of his disease. For basal infections, the patient should hang down almost perpendicularly from his hips over a table or bed. The hands or elbows should rest on the floor and the patient encouraged to cough and raise while in this position. This should be repeated from four to six times during the day for not more than one or two minutes at a time.

In the presence of upper and middle lobar lesions the patient frequently can tell what position makes him cough the most. This is the position which should be assumed for his postural drainage. With ill, febrile patients positioning in bed, with the foot of the bed elevated, may be helpful.

Bronchoscopy remains the most important single factor in improving internal drainage. It can be depended upon to do the following tasks: Remove obstructing inspissated material from the main and secondary bronchi; elicit selective cough; and shrink congested, edematous mucosa. Bronchoscopy is a most valuable procedure during acute febrile episodes in chronic pulmonary suppuration. The majority of febrile exacerbations are due to bronchial obstruction and retention of secretions. The number of bronchoscopies which should be done depends upon the type of pathological change, upon the improvement following one or two bronchoscopies and upon whether surgery is to be performed. In selected cases of the bronchitides, of extensive bilateral suppuration, or in patients whose cardiorenal disease contraindicates surgery, bronchoscopy may be used indefinitely at stated intervals to aid in maintaining adequate drainage.

In my experience the injection of medicated substances through the bronchoscope has been disappointing, nor have I been impressed with the use of expectorant drugs. Carbon dioxide inhalations following bronchoscopy appear to have helped in some instances.

The antibiotic and sulfa drugs are valuable adjuncts in the treatment of suppurative processes but the effects are vitiated if drainage is not kept adequate. Their greatest value appears to be in protecting against invasive infection. Penicillin usually has been administered by the intramuscular and aerosol routes at the same time. Reported studies relating to bacterial sensitivity *in vitro* have been most helpful. In private practice such tests have not been economically feasible. In the treatment of pulmonary abscess there have been reports tending to show that a combination of sulfadiazine and penicillin is better than either drug used alone.

In the great majority of patients *clinical* improvement has resulted from the establishment of adequate drainage and chemo-antibiotic therapy. Often there has been little roentgenographic change. After a primary increase the sputum has lessened greatly in amount, has be-

come less purulent and if originally odorous, has become non-offensive.

Surgery

The surgery of chronic bronchopulmonary suppuration is concerned with external drainage and pulmonary resection.

The indications for external drainage are narrow. From a curative standpoint external drainage is limited to a small number of chronic abscesses in which the parenchymal destruction is sharply localized, the cavity is thin-walled, and the surrounding lung is normal and without bronchiectasis. Rarely, palliation may be gained by cautery drainage of areas of suppuration or of severely infected pulmonary cysts in patients who are prohibitive risks for resection. Some patients may thereby be transformed into reasonable risks for lobectomy or pneumonectomy at a later time.

Indications for pulmonary resection have widened tremendously during the past seven years. On the one hand we are performing resections in the younger age group for lesser degrees of bronchiectasis with fewer symptoms than formerly. This is due to the fact that we have a better understanding of the long-time risk and poor expectancy in patients in the teen age group and younger, whose bronchiectasis has remained untreated except by medical means. It is possible that "prophylactic" resection of anatomic bronchiectasis or of uninfected pulmonary cysts may well become standard practice in the future. On the other hand we are performing resections on an increasing number of older individuals and patients with bilateral disease. Age is not the deterrent it was in prior years although we still undertake surgery less blythely in the fifth and sixth decades of life unless the disease is crippling and can be eradicated by operation. In spite of widened indications both the morbidity and mortality have progressively lessened.

Several factors are responsible for improved results, perhaps the most important being the standardization of individual ligation technique. A working knowledge of lobar segments and the more recent refinements in anatomic segmental resection have added further benefits in the preservation of normal lung. Of almost equal importance are the rapid gains in anesthesiology, the routine use of adequate blood replacement, intensive antibiotic and chemotherapy, and a better appreciation of the value of a clear airway both during and following surgery.

Results of Surgery

During the past 18 months my colleague, Doctor David Dugan, and I have completed 90 lobectomies for suppurative disease on 82 patients. Four additional patients underwent total pneumonectomy for bronchiectasis. There were 2 empyemas and no deaths in this group of four. Doctor Dugan operated on many of these patients while Chief of the Thoracic Surgery Section at Fitzsimmons General Hospital.

The one death (1.1% operative mortality; 1.2% patient mortality) occurred suddenly on the operating table and followed clamping of the lobar bronchus. The eight additional operations* were performed as follows: Five patients had bilateral lobectomy; three patients had a second lobectomy on the left for residual bronchiectasis in the lingula. Eleven patients in this series had bilateral bronchiectasis. All of the six with unilateral resection are improved; at least three of these eventually will have a contralateral lobectomy. Six lobectomies were necessary because of irreversible pulmonary damage and suppuration following trauma. In one, severe blast injury precipitated repeated pulmonary hemorrhages; bilateral bronchiectasis eventually was discovered. There were retained metallic fragments with fibrosis or cystic change in three, and retained fragments of wood in another.

Anatomic segmental resection has been performed 12 times in the past 9 months. There is better preservation of normal lung by this technique but the postoperative complications undoubtedly will be higher.

Complications

All three empyemas were basal and responded promptly to early rib resection drainage. Excepting empyema and one case of major bronchial fistula with incomplete expansion of the remaining lobe, none of the other major com-

plications (lobar atelectasis, 4; contralateral pneumonitis, 1) has delayed convalescence for more than a few days. Excessive bronchial secretions, temporary air-leaks and the re-inflation of fluid following removal of intrapleural drainage tubes have not been listed as complications but are often associated with this type of surgery. Under the conditions of private care and close supervision the average hospital stay of these patients has been from 12 to 14 days following surgery.

Postoperative Care

Careful attention to detail will minimize the number of major complications. The main efforts are directed at rapid re-expansion of the remaining lobes and at keeping the airway free of secretions. Rapid pulmonary re-expansion will reduce the number of empyemas. The maintenance of a clear airway will minimize the possibilities of atelectasis and pneumonitis and will, likewise, materially reduce the number of major bronchial fistulae. Bronchoscopy has been performed almost routinely at the end of surgery, and catheter aspirations of the tracheobronchial tree have been used with increasing frequency during the first three or four postoperative days.

Oxygen is administered for at least 24 hours. Preoperative penicillin is continued following surgery and the fluid intake and output are watched carefully. Transfusions are given if the hemoglobin falls below 70 per cent.

There follows a brief discussion of the several types of bronchopulmonary infection noted earlier in this report.

Chronic Purulent Bronchitis

This diagnosis always should be made by exclusion. The term includes a heterogeneous group of bronchial infections in patients whose chief complaint is irritating productive cough.

Disease	Number of Operations	Number of Patients	Empyema	Other major Complications	Deaths
Bronchiectasis	66	58	3	3	1
Infected pulmonary cysts	13	13	0	2	0
Suppuration due to late effects of trauma	6	6	0	0	0
Chronic abscess	5	5	0	1	0
Total	90*	82	3	6	1

Dyspnea is often a prominent symptom. Roentgenograms may fail to reveal sufficient pathology to account for the symptoms.

The group presents no surgical indications. The general therapeutic regimen is as follows. The patients are hospitalized for from seven to ten days. Following bronchoscopy the patients are carried on intensive penicillin therapy by the intramuscular and aerosol routes. Inadequacies in nutrition, in the blood count and in plasma protein levels are corrected. A second bronchoscopy usually is performed approximately one week later. If improvement is progressive during the hospital sojourn the patients continue on aerosol penicillin for approximately four weeks at home. Symptomatic improvement can be almost guaranteed. In some cases clinical cure has been obtained. Relapses may be expected but further treatment can be given with success. Patients with diffuse bronchiectasis are placed on the same regimen (Figure 2).



Figure 1. The type of bronchogram frequently seen which is **diagnostic** of bronchiectasis but which must be repeated before adequate surgical interpretation can be made. This patient's disease involved the right lower and middle lobes, the left lower lobe and lingula of the left upper lobe. Her right lower and middle lobes have been resected. Addendum. Present satisfactory convalescence from contralateral bi-segmental lobectomy: basal segments, left lower lobe and lingula, 3-9-48.

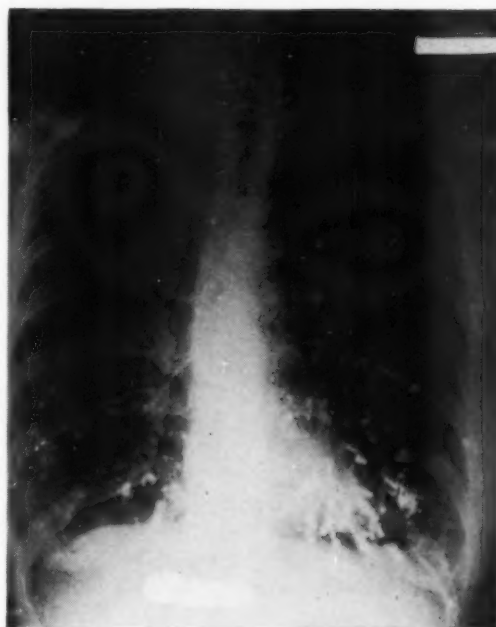


Figure 2. Bronchogram, frontal projection. Diffuse bronchiectasis involving at least five lobes. (Anatomically and surgically the lingula of the left upper lobe is usually considered as a separate lobe.) No surgical indications. This is a woman, aged 52, who had productive cough for six years following pneumonia. Increasing dyspnea for six months, seriously interfering with house work and exercise. Cardiac status adequate. Treatment as outlined in text with marked relief. The dyspnea has disappeared; cough and sputum are negligible.

Bronchiectasis

Bronchiectasis is a chronic disease and pathological changes in the bronchi and lungs are permanent. The affection may be diffuse or localized. The treatment of a patient with diffuse bronchiectasis has been outlined above; there are no surgical indications. When the disease is segmentally localized to one or two lobes on either side (Figure 3), or has involved from two to three lobes bilaterally, surgery is possible. Decision for resection rests upon the symptoms, the disability, the extent of the disease and age of the patient. Surgery can now be done with fair safety in bilateral lesions if the equivalent of one healthy lobe remains on each side. In bilateral bronchiectasis the amount of disease may not be equal on the two sides. It is common experience that removal of the more involved lobes or segments will cause sufficient amelioration of symptoms to counsel indefinite delay in contralateral surgery (Figure 4).

Secondarily Infected Intrapulmonary Cysts

True cystic disease of the lung probably is congenital and is not to be confused with "cystic bronchiectasis." Such intrapulmonary cysts have definite fibrous tissue walls and are lined with respiratory-type epithelium. They may be single or multiple, in one lobe or scattered. In general, they are asymptomatic as long as infection does not supervene. Sooner or later, however, infection develops and probably never completely clears again (Figure 5). The drainage is poor and fluid levels are frequent. Lipiodol almost never flows into the cysts. External drainage rarely may be indicated as a life-saving procedure but must be entered upon with the full realization that resection will be necessary for cure. In most cases primary lobectomy is indicated (Figure 6).

Chronic Pulmonary Abscess

Abscesses which are more than six or eight weeks old usually will show the pathological changes of chronicity. In most instances chronic abscess is a preventable disease. In most instances the physician allowing its development

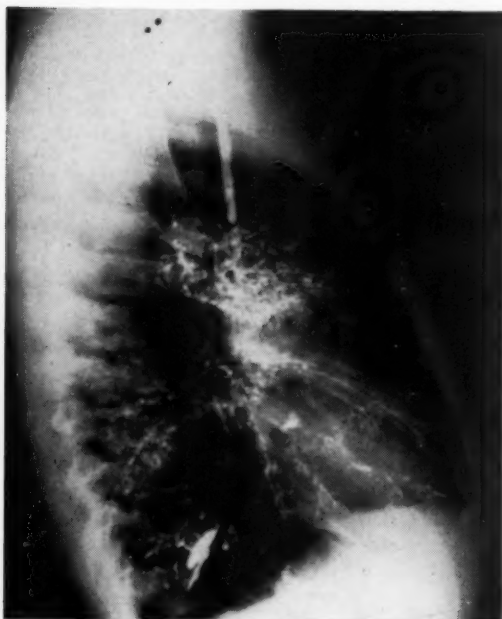


Figure 3. Bronchogram, right lateral projection showing excellent technical filling. The dorsal (or superior) segment of the right lower lobe is normal. It is slightly distended due to contraction and fibrosis in the bronchiectatic basal segments. This is a male, aged 27, with a four years'

history of productive cough and repeated hemorrhages. Basal segmental lobectomy with cure.



Figure 4-A.

Figure 4. A. Bronchogram, right interior oblique projection. There is bronchiectasis of the left lobe including the inferior branch of the dorsal segment, and of the lingula (arrows). Complete survey showed also right middle lobar bronchiectasis. Left lower lobe lobectomy and segmental resection of lingula.

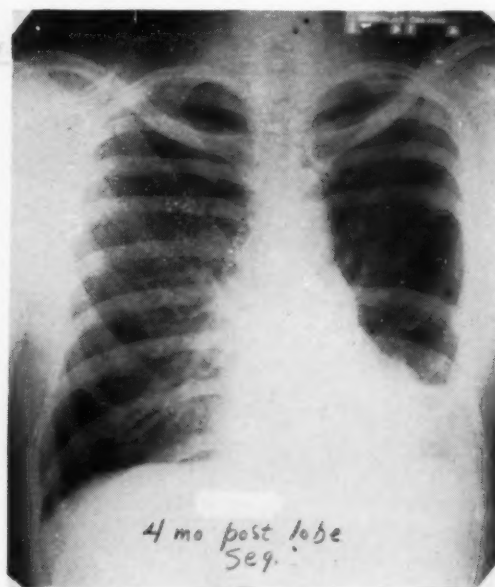


Figure 4-B.

B. Frontal projection, four months following surgery. The patient estimates symptomatic improvement at approximately 75 per cent. Resection of right middle lobe probably will be done.

while the patient is under his care should be criticised.

Rarely, improvement in drainage plus sulfa and/or penicillin therapy may lead to cure. Improvement should be prompt and progressive or surgery must be considered. The surgical treatment may be either external drainage or pulmonary resection. Before the type of surgery is decided upon bronchograms should be made unless one's hand is forced by an acute, spreading exacerbation of the infection, hemorrhage, or rupture of the abscess into the pleural cavity. External drainage may be successful if the cavity wall is fairly thin and if no bronchiectasis is demonstrated. External drainage will fail if parenchymal fibrosis, pneumonitis or bronchiectasis accompanies the abscess.

In most chronic pulmonary abscesses, primary pulmonary resection is the treatment of choice. Resection may still be performed after external drainage has been tried and failed (Figure 7). Lobectomy or pneumonectomy is possible in the face of an open sinus although the likelihood of postoperative infection is increased. The sinus is mobilized en bloc down to the ribs by sharp dissection and the epithelialized portion excised. The remaining edge is inverted over a small merthiolate pack and the skin closed solidly. This area is then sealed off from the rest of the field by means of sterile rubber dam and "Ace Ad-

condition for three weeks. Palliative external drainage was considered but averted by bronchoscopic aspirations and aerosol penicillin.

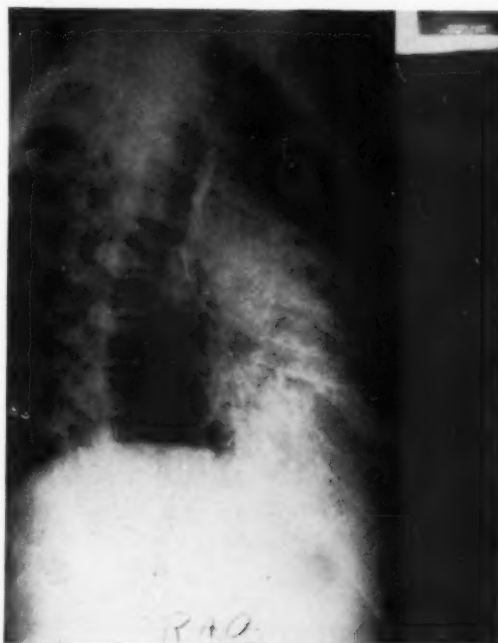


Figure 5-B.

B. Bronchogram, right anterior oblique projection, three months later. The inflammatory reaction has cleared but multiple tension cysts remain, unfilled by lipiodol. Clinical symptoms limited to slight cough and expectoration.



Figure 5-A.

Figure 5. A. A male, aged 16. Known asymptomatic intrapulmonary cysts for at least five years. Acute fulminating infection; patient in critical



Figure 5-C.

C. Roentgenogram taken 15 weeks following left upper lobe lobectomy. Excellent technical and clinical result.

herent." Instruments, gowns and gloves are discarded and the chest is entered through a clean incision.

Chronic Suppurative Pneumonitis

This condition is relatively uncommon. Apparently trauma can be an etiologic factor. Usually, chronic pneumonitis follows a lobar or extensive bronchopneumonia which has failed to resolve. The roentgen studies demonstrate shadows generally lobar in distribution. No bronchiectasis can be demonstrated by lipiodol instillation. The preliminary treatment is aimed at improving drainage and reducing infection. In selected cases pulmonary resection may be indicated.

SUMMARY

Chronic bronchopulmonary suppuration is frequently encountered. Accurate diagnosis of the type and extent of disease is important since many more patients than formerly are now being considered for curative resection of infected pulmonary tissue.

The bronchoscope is a valuable instrument both for diagnosis and therapy.

Clinical improvement can be expected in many patients not suitable for surgery by the com-



Figure 6-B.

B. Operative specimen. The multilocular cyst was lined with columnar epithelium. Resection is the only therapy which has the slightest chance of curing these individuals.

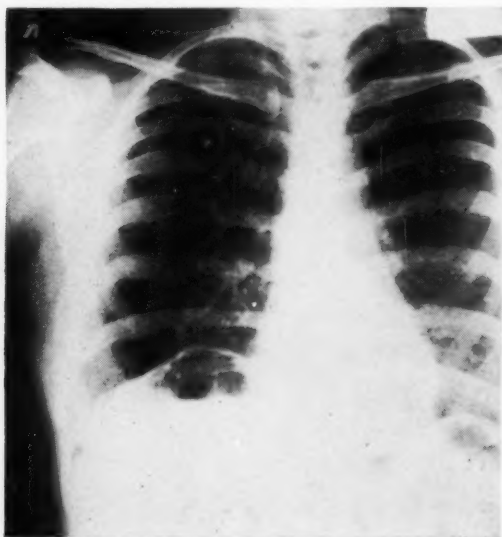


Figure 6-A.

Figure 6. A. Large intrapulmonary cyst, right lower lobe, in a woman of 45 who had productive cough for 16 years; more recently three hemorrhages and repeated bouts of chills and fever. Resection of right lower lobe.



Figure 7-A.

Figure 7. A. This 23 year old Mexican male developed foul expectoration and repeated pulmonary hemorrhages following tonsillectomy. The abscess in the posterior portion of the right lower lobe was drained externally six months following the onset of illness. Infection in the abscess seemed to be controlled but hemoptyses continued. The external sinus was allowed to

close. The roentgenogram shows persisting patchy infiltration in the right lower lobe. (Reprinted from *Diseases of the Chest* 14:79 (Jan.-Feb.) 1948.

lined use of bronchoscopic aspirations, postural drainage, intensive antibiotic therapy and transfusions.

Indications for surgical resection have widened considerably, in spite of which the results have been steadily improving. The factors concerned are enumerated.

Anatomic segmental resection is one of the newest technical refinements which promises greater preservation of normal pulmonary tissue. It has been employed for this purpose in twelve patients in the past nine months.

A group of 82 patients in whom 90 lobectomies have been performed is presented. There is one death in this series.

Bronchiectasis, secondarily infected intrapulmonary cysts, chronic pulmonary abscess, suppurative pneumonitis and chronic purulent bronchitis are discussed seriatim and definitive therapy outlined.

2938 McClure Street
Oakland, 9, California

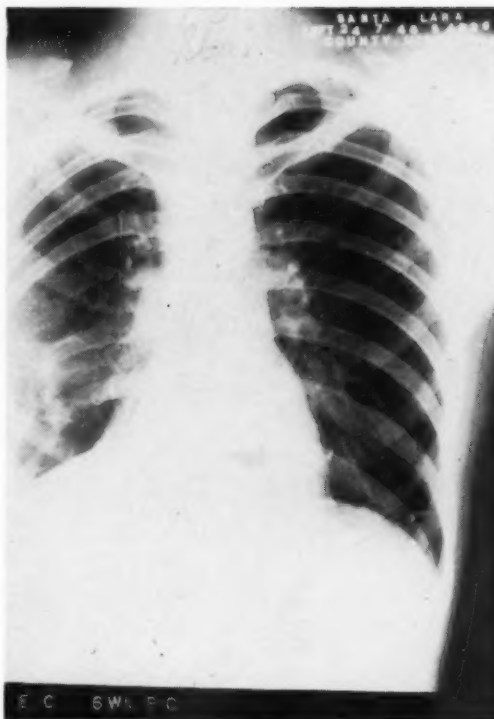


Figure 7-B.

B. Roentgen status, six weeks following right lower lobe lobectomy. The patient is cured.

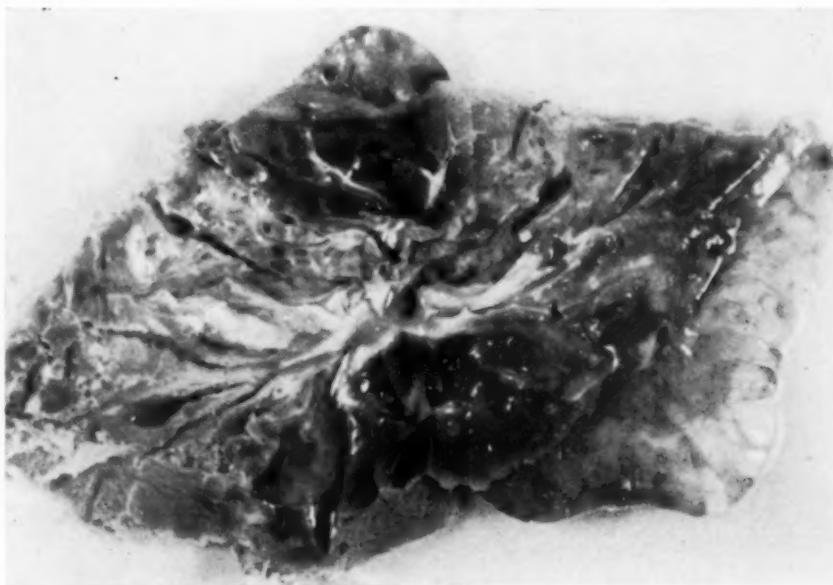


Figure 7-C.

C. Sectioned right lower lobe. The collapsed abscess cavity is to the left. The failure of ex-

ternal drainage is obvious in view of the extensive bronchiectasis. (Reprinted from *Dis. of the Chest*, 14:79 (Jan.-Feb.) 1948.

DIAGNOSIS AND TREATMENT OF BOWEL OBSTRUCTIONS

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THE problem of intestinal obstruction still continues to present a diagnostic and therapeutic challenge to all who come in contact with it. Despite the many recent advances in electrolyte balance, intestinal siphonage, caloric requirements and surgical technique, the mortality continues to remain high. Any plan which aids in the early diagnosis and treatment of the obstructing lesion helps further to reduce the number of fatalities. Wangensteen, Haden, Orr, Collier and many others have contributed monumental stepping stones which enable us to understand the pathologic physiology of this condition.

Intestinal obstruction is a symptom complex and not a disease, hence it is not enough to make a diagnosis of just "intestinal obstruction." In attacking this problem we have devised a plan whereby we can make an earlier and more thorough diagnosis, thus enabling proper therapy to be instituted more rapidly. To correctly diagnose the condition it is necessary to ask and answer the following four questions:

- (1) Is this an intestinal obstruction?
- (2) Is it a large or small bowel obstruction?
- (3) Is it strangulated or non-strangulated?
- (4) Is the obstruction complete or incomplete?

In answer to question number one "Is this an intestinal obstruction?", we expect to find the obstructive triad, namely, distention, obstipation and vomiting. Even though the triad may be present wholly or in part, its individual parts call for clarification. In regard to *distention*, one must define what he means by the term. Since we have no standard for measuring the distended abdomen, we have decided to utilize the anatomic relationship of the umbilicus to the xiphoid process. We believe that the normal abdomen is scaphoid and not flat, hence the umbilicus is normally placed below the xiphoid. When the umbilicus is on a level with the xiphoid, the abdomen is called *flat*, and when the umbilicus is above the xiphoid, the abdomen is described as being *distended*. Therefore, when the umbilicus is on a level with, or above the xiphoid, some pathologic condition exists. When such an abnormally placed umbilicus is found we con-

sider the differential diagnosis of the seven "F's", namely, Fat, Feces, Fluid, Flatus, Fetus, Fibroids and "Ph"antom tumors. In almost every case one of the "F's" has been found to be the underlying cause. It is important to record the position of the umbilicus when the patient enters the hospital, and to re-check this every hour thereafter. If the umbilicus is below the xiphoid when the patient is first seen, and one hour later is found on a level with the xiphoid, this signifies early distention. In this way we can avoid the development of a late pre-terminal distention that so many neglected intestinal obstructions present. Regarding *obstipation*, we know that the average intestinal obstruction passes neither feces nor flatus, but we also recall that this may be lacking in incomplete obstruction as for example in Richter's hernia, in which only part of the circumference of the bowel is incarcerated. In such cases the resulting irritation and hyperperistalsis may even lead to a diarrhea which can be most misleading when one makes a diagnosis of intestinal obstruction. *Vomiting*, will be more thoroughly discussed under question number two. Regardless of the absence or presence of the obstructive triad, it is far more important to elicit the one pathognomonic finding of intestinal obstruction, namely, that *pain and intestinal sounds appear at the same time*. This synchronization of sound with pain differentiates intestinal colic from any other type of intermittent pain. The physician should place his stethoscope upon the patient's abdomen when he states that he is getting his pain, and if it is of an intestinal nature he will hear the rushing bowel sounds at this time.

Question number two, namely, "Is this a large or small bowel obstruction?" The most important differentiating factor to this question is whether or not vomiting is present or absent. Patients with large bowel obstructions do not vomit, but those with small bowel obstructions do. We all have seen late cases of large bowel obstruction where vomiting has been present as a late and not too distressing symptom, but in the small bowel lesions vomiting appears very early. The higher the obstruction the more fulminating the vomiting. Utilizing this one fact,

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we can usually differentiate the small from the large bowel obstructions. To use the word "fecal" vomiting as being descriptive of intestinal obstruction is incorrect. The term "feculent" is more descriptive, since fecal vomiting refers to a gastrocolic fistula or some similar lesion. The flat x-ray plate is used to further differentiate the small from the large bowel obstruction. It is unnecessary to stand or turn the patient or to give him any contrast media. A flat x-ray picture, which can be taken with a portable machine will usually give the desired information. If the obstruction is a large bowel lesion, the x-ray plate usually reveals a large distended colon which appears as a horse-shoe or inverted "U." The rectosigmoid is the most common location for these lesions. If, on the other hand, the obstruction is small bowel in nature, the typical paralleling or step-ladder pattern will be present. The history also aids in differentiating the two types of obstructions. A slow, progressive chronic, increasing constipation speaks for a large bowel lesion, but a sudden violent attack signifies small bowel pathology. Patients with intestinal obstruction who have had previous surgery are small bowel obstructions until proven otherwise. The large bowel obstruction resulting from postoperative adhesions is a rarity. A two quart diagnostic enema is also of help. The large bowel can usually retain two quarts of fluid plus its usual contents. If the bowel cannot take the two quarts, this speaks for a large bowel lesion. There are many other ways of differentiating the two, but time nor space do not permit extending this discussion.

Question number three "Is this a strangulated or non-strangulated intestinal obstruction?", can usually be answered by the presence or absence of *tenderness*. Patients with intestinal obstructions do complain of colicky pain, but the strangulated lesion has pain plus localized tenderness. This tenderness is best found by the patient, who will usually locate the exact point of the pathology. The classical example of this is a strangulated inguinal hernia. The patient has diffuse pain over his entire abdomen, but will permit one to palpate it; however, he resents having pressure made over a strangulated mass because of its exquisite tenderness. Our incision is usually determined by the location of the patient's tenderness. Another differentiating point between the strangulated and non-strangulated obstruction is the appearance of the patient.

A patient who has a strangulated intestinal obstruction is acutely and violently ill and usually is in shock or impending shock, whereas the patient with an intestinal obstruction without strangulation does not present such a dramatic picture. The flat x-ray plate may aid in the differentiation of a strangulated from a non-strangulated small bowel obstruction. If a small bowel, non-strangulated, intestinal obstruction is present, the typical step-ladder pattern is observed and the valvulae conniventes are readily seen. If, on the other hand, a small bowel strangulated obstruction is present, no characteristic bowel pattern is assumed since the distended loops arrange themselves in whatever portion of the abdomen the obstruction occurs. The valvulae conniventes are not easily detected or seen because of the extravasation of blood into the strangulated loop of bowel and into the abdominal cavity.

Question number four states: "Is this a complete or incomplete obstruction?" As has been mentioned, a patient with a complete intestinal obstruction passes neither flatus nor feces per rectum, but if the obstruction is incomplete some flatus and feces may be expelled especially with repeated enemas. It is important not to be misled by the results of the first enema, since a copious movement and flatus may be expelled following its administration. This, however, is material which is distal to the lesion. If repeated enemas bring flatus and feces, then we assume that the lesion is incomplete; if the returns of the repeated washings are clear, we conclude that the obstruction is a complete one. A "scout" film of the abdomen should be taken when the patient arrives. This immediately reveals the bowel pattern and also determines whether or not flatus is present in the region of the sacrum. If the flatus over the sacrum is absent following repeated enemas, we consider the condition a complete obstruction, but if flatus continues to come down and appear over the sacral region, the lesion is an incomplete one. A patient with a complete obstruction will appear more ill than one with an incomplete lesion, therefore, the clinical appearance and impression is of importance.

Based on these four questions, one may make a proper diagnosis instead of just "intestinal obstruction." The case, therefore, may be diagnosed as a large bowel, non-strangulated, incomplete intestinal obstruction, or a strangulated,

small bowel, complete intestinal obstruction, depending upon the findings.

TREATMENT

When one labors through the voluminous literature on the subject of the treatment of intestinal obstruction, it becomes difficult to apply this maze of material. It is wise, therefore, to have a plan based on a simple summary. We have devised a plan based on the six "S's", since we state that the treatment of intestinal obstruction consists of Suction, Saline, Sanguine, Surgery, Sulfa and the "Stir-'em" technic.

Suction, or gastro-intestinal siphonage, has done much to lower the mortality of this condition. It has its pitfalls, however, and these must be kept in mind. It has no place in large bowel obstructions nor should it be used when strangulation is present. On the other hand, it may be curative in postoperative ileus, non-strangulated adhesive obstruction, or in obstruction associated with peritonitis; these are usually small bowel lesions. Its value as a pre- or postoperative adjunct needs no emphasis. To keep a patient with a carcinoma of the rectosigmoid and a large bowel intestinal obstruction on continuous siphonage is to court disaster. Hence, its uses and abuses must be thoroughly understood.

Saline can prolong the life of a patient with an intestinal obstruction, however, it cannot cure the condition. It is an excellent form of supportive therapy. Chloride ions have been lost in the patient who has manifested a great deal of vomiting or in whom continuous gastro-intestinal siphonage has been instituted. These must be replaced, and it is mainly by the use of physiological saline that the patient's chloride balance may be maintained. By restoring this electrolyte balance one is able to put his patient into better condition to withstand surgery, and in this way also to lower the mortality. Saline, however, is not the only supportive therapy that the patient needs; this will be discussed subsequently.

Sanguine is the word used to refer to blood and its derivatives. We feel that the only place for the use of whole blood is in the replacement of lost red cells. We prefer to keep the protein balance of the patient normal with plasma, serum or amino acid therapy. If the obstruction is associated with blood loss, we feel that the fluid of choice is then whole blood. In many cases of strangulated obstructions, or in cases which

might necessitate extensive bowel resection, whole blood is preferred. Maintaining a normal protein level permits a patient to properly seal because of his good fibrin content. Hypoproteinemia and hyperchloridemia are two conditions which must be avoided in the case of intestinal obstruction as well as in all other surgical emergencies. Too little protein and too much chloride both produce tissue edema and permit the patient to "drown" in his own body juices. It is because of hypoproteinemia and hyperchloridemia that sutures pull out of edematous tissue. Faulty suturing or material is not the cause of intestinal leakage; this is due to poor pre- and postoperative care. The patient's vitamin needs must be maintained, especially the water soluble vitamins B and C which he loses readily. Vitamin C is truly the "surgeon's vitamin" because this is the one which is essential to sound wound healing.

Surgery is a subject which cannot be discussed adequately in a few minutes or a few pages, and I will only have time to touch upon the surgical highlights as they pertain to the patient with an obstruction. If a patient has a strangulation he should have immediate surgery. As has been stated, the patient will tell us where to make the incision if we just permit him to reveal his most tender spot. Complete large bowel, non-strangulated lesions require immediate colostomy for the release of intracolonic pressure. We prefer the so-called "blind" cecostomy in such conditions. This is made through an exaggerated McBurney's incision which hugs the anterior superior iliac spine. If the cecum is distended, and it surely should be in an obstructed colon, it bulges into the wound. It is held in place by two hemostats and an iodoform pack is placed between the cecum and parietal peritoneum. Following this stitchless procedure, the patient is returned to bed and the cecum is opened some six hours later after it has had a chance to seal off. Since the bowel wall is edematous and will not retain sutures it is unwise to directly attack an obstructed colonic lesion. It is for this reason that we leave the primary pathology alone and do a preliminary cecostomy away from the site of the lesion. For the following ten days or two weeks the patient may be deflated, prepared and then re-operated. It is at this time that a true evaluation of the pathology can be made and a resection done. The cecostomy acts as a vent in the event that an

intestinal anastomosis is performed. In strangulated lesions we may be confronted with the question "Is the bowel which has been freed viable or not?" It seems impractical to stand about placing hot towels on a segment of intestine and watch its color. Viability is readily determined if one merely flicks the bowel with the finger and watches for peristaltic waves. If it is able to contract, regardless of the color of the intestine, it is viable. Intestinal obstruction is usually associated with a transudate which is present in the peritoneal cavity; if this is bloody a strangulation is present. Therefore, if a blind cecostomy is done and a sanguinous fluid noted, we must abandon the cecostomy and explore for the presence of a strangulated lesion. The type of anastomosis performed is purely a personal one, however, we feel that a lateral anastomosis is the safest in the hands of the occasional operator. If time is a factor, one should be familiar with the technic of the so-called quick "aseptic" end to end anastomosis.

Sulfa drugs have taken their place among the chemotherapeutic agents used in the treatment of intestinal obstruction. There is also a place for such allied drugs as penicillin and streptomycin. Following the surgery, we place three to four grams of sulfathiazole or sulfadiazine in the peritoneal cavity and follow this with forty thousand units of penicillin every three or four hours intramuscularly. We do know that penicillin will not effect the colon group of organ-

isms but it will attack streptococci and staphylococci. Sulfadiazine is administered intravenously following the first postoperative day and streptomycin is coming into its own as the main chemotherapeutic agent against the gram negative rods. Sulfasuxidine and sulfathaladine will keep the bacterial count low in the intestinal tract if these drugs can be taken by mouth.

By "stir-'em" technic we mean early ambulation, active and passive movements and breathing exercises. The beneficial effects brought about by getting patients out of bed as soon as possible have been well proven. We do not wish to infer that early ambulation should be carried to an extreme. It is our plan to have our major surgical cases out of bed on the first postoperative day; however, each case presents an individual problem. Having the patient move about, having him take a few deep breaths every hour, and encouraging arm and leg movements all play their part in lowering the incidence of phlebotrombosis, pulmonary complications and their sequelae.

Only the surface has been scratched in this discussion of the vast subject of intestinal obstruction, however, we feel that if we approach the problem with the "Four Questions," make a diagnosis based upon these, and then summarize the treatment with our "Six S's", we should have a logical approach to a given case.

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CHRONIC COCCIDIOIDAL MENINGITIS

Case History

IRVING FRANK, M. D.

United States Indian Service

IN 1894 Rixford reported the first North American case infected by *Coccidioides Immitis*. Latter Ophuls and Moffett found that *Coccidioides Immitis* grow readily on artificial media. Ophuls first attached the name of *Oidium Coccidioides* to the organism and *Coccidioides Granuloma* to the lesion produced.

C. W. Emmons, et al¹, believes that man and animal become infected by inhalation of spore laden dust; he was able to isolate *C. Immitis* from sub-strata in San Joaquin Valley. They found that rodents living in the area where Coc-

cidomycosis is endemic were infected with the organism. The literature tells us that the South Central California, particularly the San Joaquin Valley, the Southern half of Arizona and Western Texas are endemic areas. The failure to include this area, the Navajo Reservation, I feel is a serious error. Aronson, et al,³ had furnished evidence that *C. Immitis* is prevalent in San Carlos Indian Reservation, although these areas are not included as endemic zones. Thus, frequently it is not recognized clinically in those areas. He found that 92% of Indian school children in the

above areas react to the intradermal infection of Coccioiodin.

Many authors point out that the causative organism originally gains entrance to the body by way of a lesion either of the skin or by way of the lungs, in which case it is inhaled in the inspired air. The local skin lesion may be small and often missed, or it may ultimately develop into an ulcerated swelling, which is fairly characteristic. The pulmonary lesion apparently first occurs in the form of a mild pneumonia and is often mistaken, clinically, for an ordinary respiratory infection. In about 25% of *C. Immitis* infection which become systemic, the central nervous system is involved.

Our patient, L. M., a fullblooded female Navajo about 29 years of age was admitted on March 29, 1947 to the Navajo Medical Center. Her complaints on admission were that she had suffered from headaches for the past month and had frequently vomited; the type of vomiting could not be determined from the patient's history. She seemed confused; getting a history was very difficult and she was generally antagonistic. It was obvious that the patient was emotionally upset.

Physical examination revealed a well developed, well nourished female adult who did not appear acutely ill. The temperature was 99° F, the pulse rate 80, and respiration rate 20. The skin was clear, warm and no abnormal areas noted. The eyes, ears and nose were negative. Patient refused to open her mouth. There were no palpable glands. Chest tones were clear to auscultation and percussion. The heart borders were within normal limits, regular and no murmurs present. The abdomen was not distended; there were no masses. The liver, spleen and kidney could not be felt. Vaginal examination at that time was not done. The upper and lower extremities were normal in range and motion and no deformities were noted. The cranial nerves were intact and the reflexes were normal.

Laboratory examination on admission revealed the following: RBC 4,490,000; WBC 5,700; hemoglobin 88% (Sahli); stab 3; segs 72; lymphs 19; monos 6. The blood Kahn was negative. X-ray of the chest was not done. Spinal fluid examination revealed 1,200 WBC; 45% polys; 55% lymphs; appearance of fluid was turbid; smear revealed no organism; there were no pellicles; globulin was 3 plus; Mazzini test was positive and the Levinson's test was nega-

tive; the colloidal gold curve was 5-5-5-5-4-3-2-2-0. The blood serology was repeated and was still negative. On April 18, 1947 a second spinal tap was done revealing 1,710 WBC; 63% polys; 37 lymphs. The color was turbid and no organism was found on direct smear. The globulin was 3 plus; colloidal gold curve was 5-5-5-5-4-4-3-1-0; the spinal fluid Kahn negative. On April 1, 1947 spinal fluid culture was positive for *C. Immitis*. On April 17, 1947 infected spinal fluid was injected in the testes of a guinea pig, and on May 28, 1947 *C. Immitis* spores were found directly from the testicles.

This patient had been moved into a room where previously a patient expired of *C. Immitis* (pulmonary osseous type). It was first thought that it might have been a contamination. The first culture was made on Petroff medium since the entrance impression was tuberculous meningitis. However, when a typically abundant grayish-white, cottony growth was noted and transferred to Sabouraud agar, this proved to be the *C. Immitis*. It was thought best to do a second spinal tap. The spinal fluid was cultured on a Sabouraud agar medium and again the typical *C. Immitis* growth was obtained with the typical spore formation noted on smear. At the same time some of the spinal fluid was injected into a guinea pig, which proved to be positive for *C. Immitis*.

After 24 hours in the hospital the patient became more cooperative. She could not remember any of the incidents of her first 24 hours in the hospital. The patient ate very little; seemed to sleep well. She complained constantly of headaches, infrequent shooting pains which she said began in the back of her neck and radiated to her eyes. It was felt that she might have a central nervous system syphilis. There was a lapse of time before the definite proof of the true nature of her illness was known. The patient received 30,000 units of Penicillin every 3 hours, Bismuth subsalicylate, 1 cc weekly, and Tryparamide, 2 grams weekly. She received penicillin from April 2, 1947 until April 21, 1948 with no apparent effect. Her temperature range while in the hospital was between 99° F to 102° F; the pulse range between 80 and 120; her respiratory range between 20 and 25. She received supplementary supportive therapy while in the hospital. On April 25, 1947 she felt well enough, she thought, to go home—27 days from the time of her first admission.

Second Admission: On July 22, 1947 at 2:35 p. m. an acutely ill patient was wheeled into our clinic. Through interpreters I was able to learn that patient could not walk or move her legs. She stated that this condition was a sudden development, that she had blurred vision and admitted some headache and vomiting. The patient seemed lethargic, confused and was not sure where she was. The name she gave was not the same as that given on her first admission, which added to the confusion. She denied previous admission to our hospital.

Physical examination revealed a fairly well nourished and developed female about 29 years of age. Her temperature was 99.2°F; pulse 88; respiration 20; blood pressure 104/76. The skin felt warm, was clear, of good texture and no abnormal areas noted. The pupils reacted to light and accommodation. The ears revealed normal drums. The nose was clear. The teeth presented a few dental caries. A posterior pharyngitis was noted with a posterior nasal drip; the tonsils were small and atrophic. Several small lymph nodes were felt along the sternocleidomastoid muscles bilaterally posteriorly. Chest tones were clear to auscultation and percussion. Heart tones were regular, clear, no murmurs were heard. The heart borders were within normal limits. There were no masses felt in the abdomen. The liver, spleen and kidney could not be felt. Vaginal examination presented a slight purulent discharge; the cervix and vaginal walls were slightly hyperemic.

Neurological Examination: The patient seemed confused and lethargic. She had difficulty remembering simple details. Her speech sounded slurred and talking seemed difficult. The cranial nerves appeared to be intact. The eyes responded to light and accommodation, and revealed a 2 plus choked disc, bilaterally. The patient resented having her head flexed upon her chest, complaining of mild pain in the neck muscles. The upper extremities revealed a flaccid paralysis on the right side; in the left extremity, the muscle tone was poor and reflexes absent. The patient, however, was able to move her left arm; her coordination was poor. She presented a positive adiadochokinesis and dysmetria. The abdominal reflexes were absent. The lower extremity musculature was good, the reflexes were slightly hyperactive, bilaterally. She had difficulty walking and standing. The Romberg was positive. There was a suggestive Babinski sign.

The superficial and deep sensations were normal, except for a suggestive zone of hyperaesthesia about the level of the nipples. She had no control of urination on admission, but did have some control of defecation. She later lost control of both.

Laboratory Examination: July 23, 1947 the RBC was 5,250,000; WBC 8,300; hemoglobin 98% (Sahli); stabs 5; segs 55; lymph 30; monos 9. The blood Kahn was negative. Mazzini was negative. Blood chemistry done on August 1, 1947, the non-protein nitrogen was 45 mg. per 100 cc; the Creatinine was 2.4 mgm per 100 cc. The spinal tap done on admission revealed a clear, yellowish fluid, which clotted by the time I was able to take it to the laboratory—a period of less than five minutes. This xanthochromia with massive coagulation of fluid is referred to as Froin Syndrome. The colloidal gold curve was 5-5-5-5-5-5-5-5-5-5. Test for occult blood in the spinal fluid was negative. Urinalysis done on July 23, 1947: specific gravity 1.007; albumin slight trace; sugar negative; rare blood cells; rare white blood cells; few hyaline cast. Smear of the cervix showed no Gram negative intracellular diplococci. Culture of the spinal fluid revealed no organisms after 5 days incubation. Sedimentation rates done July 23, 1947 and August 1, 1947 were 26-24 mm after 60 minutes (Cutler). X-ray of the chest revealed normal adult chest. X-ray of the vertebral column revealed no findings, except sacralization of the right transverse process of the 5th lumbar vertebra. The intradermal skin test with Coccidioidin vaccine was positive, revealing an erythematous area about the size of a dime. A sample of blood was sent to Dr. E. M. Butt⁵ of Los Angeles County Hospital, who was kind enough to do a complement fixation reaction for Coccidiomycosis. He reported that she was positive through serum titres of 1:64. He indicated that such positive complement fixation tests indicate activity, and may be associated with a negative skin test, although our result was positive. C. B. Courville, M. D.⁴ indicated that organisms are not isolated directly from the spinal fluid unless there happens to be a very acute exudate and, in rare instance, a culture of the organism can be grown from the spinal fluid. This we were successful in doing during her first admission. The patient's course during her last stay in the hospital was a stormy one. The range of her temperature was between 99°F and 105°F; her pulse range

between 99 and 120; the respiratory rate between 20 and 25. She had no control of either her bladder or rectum. She appeared lethargic and slept most of the time. She remained motionless in bed, since she was unable to move without help. She was given supportive treatment of intravenous fluids, high calorie and vitamin diet. She grew progressively worse; excessive mucus accumulated in her mouth since she had difficulty in swallowing. Constant aspiration was necessary. She complained of pains over her body and headache, vomiting constantly. On August 6, 1947 she began to have periods of unconsciousness which lasted one-half hour, complaining of stiffness and soreness of the muscles in her back and neck. She soon began to talk incoherently, crying suddenly as if in pain. She became restless. Her eyes became fixed and she lapsed into coma. The patient expired on August 15, 1947, exactly four months and 17 days after her first admission to our hospital.

On autopsy, when the skull was opened, the vessels over the brain were congested; the pia-arachnoid thickened, and a grayish-white exudate covered the base of the brain. There were fine, small, elevated areas covering the brain stem and medulla. The ventricles were slightly dilated and filled with clear, excessive fluid.

The lungs were small and a light purplish-red color. The bronchi were filled with a white, sticky exudate. It cut with ease; the cut surface on scraping poured forth the same white, sticky exudate. A whole lung and part of the brain were sent to Dr. E. M. Butt,⁵ who sent me a complete gross and microscopic picture.

"Microscopic—Lung: The air spaces are for the most part empty. A few contain coagulated fluid. The capillaries are somewhat congested. Adjacent to a bronchus bearing cartilage there is a caseous area occupying about two low power fields and surrounded by a zone of granulation tissue in which there are epithelioid cells and round cells. An occasional giant cell is found, some of which contain spherules and spherule bearing giant cells that contain spherules. Some of the tubercles are partly replaced by hyalinized fibrous tissue. Several bronchioles in this section are distended with polynuclear leucocytic exudate."

"Another section of the lung contains some rather large confluent areas of caseation bordered by granulation tissue that contains poorly defined tubercles. Numerous spherules are found

Figs. 1, 2, 3, 4, 5—Lungs showing disseminated Coccidiomycosis giant cells noted which contain spherules and spherule bearing endospores of *Coccidioides Immitis*. (By courtesy of E. M. Butt, M. D.)

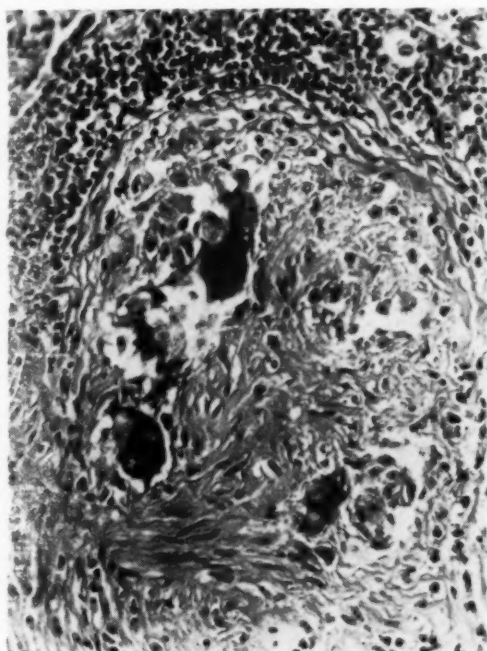


Figure 1

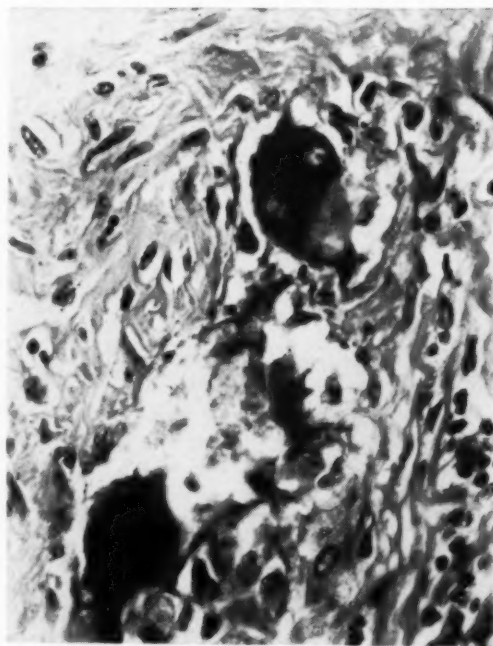


Figure 2

in this section. A small peribronchial lymph node is nearly replaced by dense hyalinized fibrous tissue arranged in whorles, representing

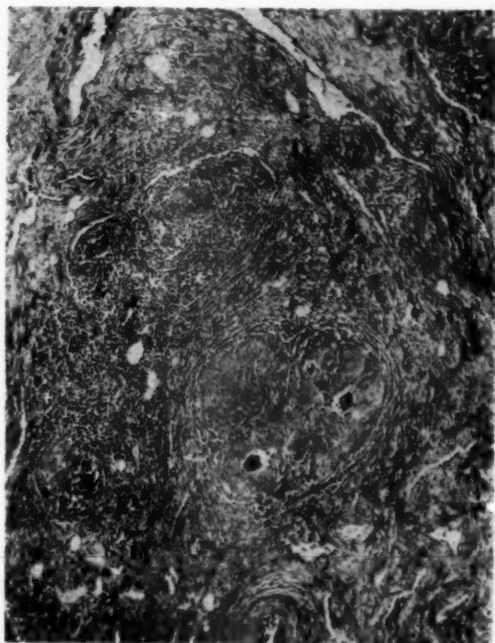


Figure 3



Figure 5

Fig. 6—Meninges showing scattered at irregular intervals a few spherules of *Coccidioides immitis*—some show endospore formation. (By courtesy of E. M. Butt, M. D.)

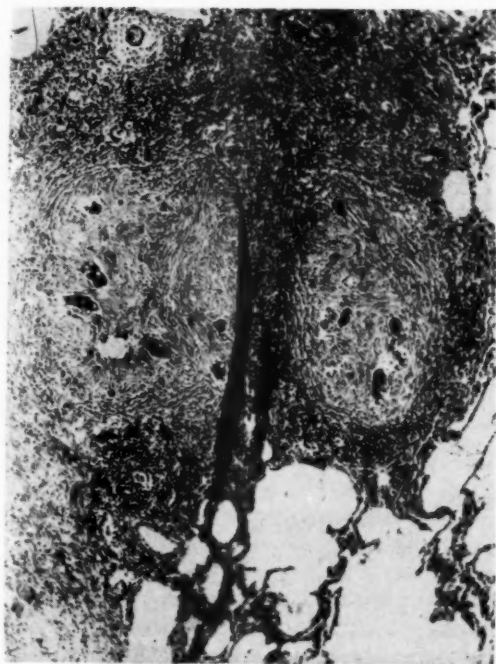


Figure 4



Figure 6

healed tubercles. In some of these areas there is necrosis and a few giant cells bearing spherules are found."

"Brain—All nuclear structures are gone. The tissue stains a diffuse light pink color. Scattered at irregular intervals there are a few spherules of *Coccidioides Immitis*. Some show endosporeulation."

"Anatomical Diagnosis — Disseminated Coccidiomycosis; subacute Coccidioidal Meningitis; healing primary pulmonary Coccidiomycosis."

NOTE: After 6 weeks of incubation a lucrative, cottony white growth was obtained showing the typical *C. Immitis* spores. Positive growth obtained from spinal fluid taken during 2nd admission at the Navajo Medical Center Laboratory.

SUMMARY AND CONCLUSION

The case presented is of interest because of the clinical course. The patient's complaints were entirely neurological. On her first admission she presented mental symptoms, such as mental confusion, headache, vomiting, vague muscle soreness of the back and neck muscles and,

at times, seeming to be perfectly well and then lapsing into a state of mental confusion. On her second admission she came in with muscle paralysis, muscle weakness, headache, vomiting, talked incoherently, later lapsing into a state of unconsciousness. Fortunately, on her first admission the causative organism was cultured from her spinal fluid. The importance of the skin test and complement fixation test is shown in her second admission. It is the case study of a full-blooded Navajo female, who I know has spent the last two years on the Navajo Indian Reservation in an area that has not been considered as endemic for Coccidiomycosis.

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5. Photographs of microsections were by the courtesy of Dr. E. M. Butt of the Los Angeles County General Hospital.

EFFECT OF PROTEIN DEFICIENCY IN AVERAGE DIETS

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THE purpose of this paper is to call attention to an increasing number of marginal or sub-clinical disturbances produced by diets with low protein values. The values of Sherman of 1 gram of protein per kilogram of body weight; or about 70 grams or 2½ oz. of protein for the average 150 lb. person per day are probably the minimal daily requirements for bed patients and certainly not the optimal values for active people. One average steak weighs 10 to 14 oz.

This study was started about 10 years ago and involves 308 persons ranging from 4 years to 82 years of age and from 34 lbs. in weight to 317 lbs. and includes both sexes. Realizing that statistical reports are both tiring and subject to variable interpretations, I propose to relate the results and observations and implore you to search out your protein deficient patients and

treat them with adequate quantities of protein rather than the individual use of liver, iron, vitamins, minerals, amino acids and such.

These patients were all given complete physical examinations to rule out definite medical and surgical conditions and only those who presented no obvious diseases were included in this series. They were all private patients living an average life and many believed they were eating adequately, but thought it quite "un-American" to eat meat for breakfast. The occupations were largely those of the so-called white collar class or service-rendering occupations and housewives, but also included a few heavy physical workers.

The majority of cases showed no marked change in their laboratory findings when we consider the wide variation in the accepted normals. We found a greater drop in the total blood serum albumen than in the albumen, globulin ratio or total serum protein values. Occasionally we found a significant drop in the total red count and hemoglobin and also in the mean corpuscular hemoglobin volume as well as in the mean corpuscular hemoglobin vol-

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The printed title is a misnomer. The true title of this paper is "I Cannot Cure Patients with Vitamins, Liver Extract, Iron and Carbohydrates."

Realizing that this conference is made up of doctors interested in the various specialties, I have chosen this subject as being of common interest to all specialties and shall avoid all technical terms with which you are all thoroughly conversant.

ume concentration. However, these findings were not uniform and were not pathognomonic. Our best diagnosis was based on the history of symptoms of both exhaustion and inadequate diet. Naturally there were all degrees of exhaustion and all degrees of inadequacy of diet. No attempt was made to determine the amount of deficiency of the various components of lean meat such as the various vitamins, minerals, amino acids, peptones, peptides, split proteins, etc. The term protein is used to mean lean meat and eggs with special emphasis on lean meat. Eggs seemed to be no substitute for meat. I have not included the vegetable proteins which are not as rapidly and easily utilized by the body.

The symptoms of this group were very diverse after specific and organic conditions were eliminated. The chief symptoms were those of the broad classification of exhaustion involving physical, nervous, mental, emotional, psychological and sexual exhaustion.

It is very amazing to observe how these various types of exhaustion overlapped and when one type of exhaustion occurred usually all the others were there also.

Under physical exhaustion were complaints of loss of endurance and strength, fatigability, palpitation of the heart, and shortness of breath on exertion, necessity for greater amounts of rest and sleep, and also loss of tissue turgor.

Under nervous exhaustion were complaints of increased irritability, restlessness, sleeplessness, over-stimulation by noises, intolerance of neighbors, children and family.

Under emotional exhaustion were complaints of emotional instability, hysteria, phobias, pettiness, magnification of troubles, crying, weeping and sobbing without reason.

Under sexual exhaustion were complaints of decreased sexual ability and libido, general apathy, frigidity and probably infertility.

For a long time we had tried to analyse the specific type of deficiency and tried to prescribe vitamin this or that, liver extract, iron, minerals, tonics, sedatives, vacations, and various other popular cures. Our results were not satisfactory till we considered those people deficient in all the body building elements and prescribed huge quantities of the foods richest in protein. It was observed that the results obtained with liver extract and iron injections were poor compared with the results obtained when these were used in conjunction with a heavy protein diet.

The usual diet encountered in these patients consisted of; for breakfast: cereal, toast, coffee, or fruit or juice, roll and coffee, or coffee and cigarette, or nothing—often coffee or coca cola at 10 A. M. or nothing till noon, when scraps, or a sandwich, or salad, or fruit, or milk was considered adequate food. Some fortified themselves with a dessert or soft drink in the afternoon but all assured us they ate a good dinner usually consisting of meat, potatoes, vegetables, salad, coffee, and sometimes dessert. There were naturally many variations and substitutions for the above foods but in the main these were typical.

The symptoms presented varied greatly depending on the type and amount of work of the individual as well as the personality and the degree and length of time the under-nutrition had persisted.

Typical symptoms included loss of appetite, a necessary 8 to 12 hours of sleep with definite exhaustion on the days when less was obtained: a feeling of needing to stay in bed longer and needing more sleep, and arising because of necessity, a drowsiness from arising till coffee or a cold shower had been taken. By then, they had been stimulated and aroused, were short on time, and hurried to work. Many had a feeling of well-being until about 9:30 or 10 o'clock when a let-down occurred and a snack was needed. Lunch was eaten usually in a hurry and the patient felt fairly well till about 2 o'clock when again he felt let down, which progressed till quitting time, during which time it was a definite effort to stay on the job. Many felt so exhausted that on arriving home they had to sit and rest and often napped till time to prepare or eat dinner. Some felt definitely best and strongest in the evening after dinner and others were so tired they had no desire to go places but felt they had to go to bed so as to be able to go to work the next morning. Many admitted their nerves were completely shot—that everybody got on their nerves for no reason at all. Many noted their disposition was very bad but stated they just couldn't keep their disposition rosy.

This diet and regime, when continued for long periods of time in the normally active and alert person, reduced their ability to work to a definite minimum. It also was reflected in their personality, disposition and general mental and nervous attitudes. Observation noted many

whose facial expressions appeared drawn and haggard, older than the age indicated, and a sense of general apathy. Numerous patients with natural, happy, cheerful, and alert personalities seemed completely fatigued and poorly animated even while sitting for history taking.

Three cases were picked because of their very dissimilarity of complaints:

A 22 year old lady developed marked asthenia and listlessness, loss of appetite and apathy following a simple, otherwise uncomplicated appendectomy. History of physical findings were not unusual—weight 126 lbs., height 5 ft. 8 inches, occupation aircraft factory.

Following surgery she became listless, apathetic and required minimal narcotics—no vomiting or distension occurred. Patient answered questions slowly and completely lost her natural animation and facial expression. Her temperature, respiration and pulse chart were entirely normal. Blood counts were well within normal limits.

Her loss of appetite and listlessness were *definite* and the patient remained in this state three days during which time blood studies and chemistries were done in an attempt to establish a diagnosis. Her condition became somewhat alarming and intravenous amino acids and glucose were given and the patient forced to eat against her desire. Twelve hours later a complete reversal of her symptoms occurred, she became normally alert, and animated and actively interested in her surroundings. An uneventful recovery followed. Her blood chemistries, chloride, calcium, serum, albumen, protein ratios were within average limits throughout this period.

Upon close questioning it was found that she arose at 6:30 A. M., drank a cup of coffee and an occasional roll and rushed to work. There were no adequate food facilities available at work and she carried fruit, vegetables or a chocolate bar or a sandwich for lunch. She was so exhausted at dinner time she fixed herself only a minimal dinner. This program had continued for 2½ years. She had noted several faintings during the past three months. It is little wonder that she had a deficiency of body building foods and that her physiology was completely disturbed by surgery.

Another patient, a girl of 15, weight 100 lbs., student, complained of cough, frequent colds, and exhaustion throughout the winter months. She had been treated continuously the preceding winter with numerous vaccines, vitamins, tonics and general measures. She had been excused from physical training and had been absent more than 20% of the time from school.

Her laboratory findings were somewhat low—RBC 4,220,000, WBC 5,850, PNNL 65%, Lymph 33%, Mono 2% and Hbgl 74%.

When questioned regarding her food she stated that for breakfast only orange juice—had no appetite and felt too stuffy to eat; she had a 15 to 25 cent lunch at school and an average dinner. She definitely did not want to gain weight.

This patient was placed on a heavy protein breakfast after much persuasion and severe measures instituted by the parents, and throughout the ensuing winter lost no time at school, gained 9 lbs., attended gym regularly, and felt fine and was never treated for colds or respiratory infection. It is any wonder that an adolescent should be completely exhausted and subject to intercurrent infections when she purposely starved herself of body building elements.

A 44 year old secretary weighing 173 lbs. had utilized for many years various reducing diets such as the 18 day, Ladies Home Journal, 800 calorie, buttermilk and banana diets, and others. She stated she could easily lose 30 to 35 lbs., but always replaced the fat and more when she left her diet.

Her complaint was heart trouble. This she had diagnosed because she had to sit down and rest 2 minutes after walking 2 blocks on her way home after working. Then she could walk the other 3 blocks. Physical examination revealed a normal height, plump lady, mentally alert and with a good sense of humor—no evidence of cardiac or other disease could be demonstrated. Laboratory findings were RBC 4,720,000, Hbgl 82, WBC 6,800, Serum, protein, albumen and calcium phosphorus normal.

It was considered that she, too, might be starving herself for proteins. Breakfast consisted of coffee; chocolate or a sweet at 10 A. M. Noon—sandwich or dessert or salad. In the afternoon always had a treat consisting of cake, cookies, candy or pie and two or three Hershey bars so she could stay on the job. Dinner was the average meat, potatoes, vegetable, salad and dessert.

She was immediately placed on a large meat serving, two eggs, toast, butter and jelly for breakfast and in eight days reported she had lost her craving for sweets in the afternoon and could walk home without rest, and her clothes became looser. In the next 60 days she had lost 22 pounds and felt the strongest she had in many years.

Although this problem has been definitely noted for many years, a great increase in these protein deficiencies has occurred during and following the war years. These deficiencies do

not develop immediately but are probably often progressive over several years before they become manifest and produce symptoms.

Large numbers of people have lived for years on practically a starch, sugar and fruit juice or coffee breakfast, a light lunch, and one fair meal at night and carried on their normal occupations. During the war years the quality and quantity of their basic foods were reduced by shortages, rationing and prohibitive prices. Meat, although 2nd or 3rd grade was scarce, rationed and costly as well as were milk, cream, cheese, butter, sugar and good cooking fats and oils. It is natural also that the restaurant meals and prepared foods were all lacking in these strength building elements, and the formulas of the entire line of bakery goods and desserts were changed because of these shortages and high costs.

For five or six years the quantity and quality of the basic food elements of large populations often were reduced to a minimum and their output of energy both physical, nervous, mental, emotional and other stresses and strain were increased many fold. Marked deficiencies resulted. The drug houses have capitalized on the word vitamin deficiency. Considering vitamins normal components of basic foods, if a vitamin deficiency occurs then there also must be a dietary deficiency.

The decrease of quality and quantity of meats, butter, milk, eggs, cheese, and sugar because of scarcities, rationing and because of cost, has resulted in a marked deficiency of necessary food elements in the body.

Naturally the individual, although he thought he was getting the same diet, in reality was getting much inferior foods due to altered formulas.

The same patients found themselves confronted with much greater physical, nervous, mental and emotional demands on their strength due to the war problems.

Thus has followed a deficiency of the body building foods due to greater expenditures of energies and a decrease of adequate body building food intake.

It is apparent that energy requirements can be provided by any or all of the three basic food elements, starches, fats and protein, but only protein can build and repair tissue. These properties apparently depend on amino acids as basic unit components. It has been said the

amino acids are to protein what glucose is to starch.

A difficult experiment a few years ago consisted of having our obese patients write down daily and hourly every food that was eaten. At the end of 14 days these lists were handed back with the single changing of breakfast for dinner and dinner for breakfast.

To get a lady to cook her dinner and eat it for breakfast is one of the impossibles—try it some time. I obtained some 12 women to consent to it. Every one lost weight and felt stronger and better.

From this we found that on exactly the same caloric diet these women could burn up their excess fat and actually have more strength in the day time. Then followed the prescribing of large breakfasts with a reduction of sugars and starches and fats the rest of the day. This was very logical as the protein blood food was then available in the blood stream during the working hours when it was needed. They were then able to burn up their stored fats in the presence of an excess of protein in the system.

By eating their large meal at night the blood food is absorbed and stored during the following 12 to 14 hours of inactivity. The patient thus spends the daylight hours with the minimum of blood food, sugar and protein available for the muscles, organs and tissues, when the greatest expenditure of energy occurs.

I am thoroughly convinced that the optimum strength can only be had by heavy protein diets administered at an early breakfast. It is logical that a person has more strength after eating than before. We have insisted on a heavy protein serving for breakfast, and as much as could be had for the other meals, with a decrease in starches, sugars and fats for these deficient patients.

The amount of protein is of all importance. It must be a large serving, preferable 10 - 12 ounces. It was found that any kind of lean meat, fish or fowl such as steaks, ham, pork, pork chops, lamp chops, mutton, chicken, fish, rabbit, turkey, liver or ground meats, or roasts, or cold meats, if eaten in large amounts, would suffice. Bacon is not included and has only slight value.

It has been quite gratifying to see how rapid, in 10 to 14 days, definite results begin. The patient feels stronger, is more cheerful and ambitious, loses cravings for sweets and is happier.

They almost invariably lose weight promptly and especially if they attempt to limit the sugars and starches and fats in the other two meals.

Most authorities agree that the human body is poor on synthesizing proteins from vegetable elements and feel that many of the body proteins can only be builded from other animal amino acid and protein elements.

This is probably why a slow depletion of protein reserves occurs on restricted diets and why far more value is obtained with the combined use of heavy proteins with our anti-anemic drugs such as liver extract, iron and vitamins.

IN CONCLUSION

There is an increasing number of borderline

protein-starved people with various symptoms often not diagnosed by our usual laboratory methods.

The actual food intake of our patients should be recorded in the history and studied.

The use of huge quantities of meat protein, up to 3 to 4 gm per Kg. of body weight, especially for breakfast, can do far more for the general health and strength of these patients than prolonged therapy with vitamins, iron, liver, minerals and such.

I still cannot cure my patients with vitamins, liver extract, iron and starches.

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EARLY AMBULATION AND DECREASED INCIDENCE OF POST-OPERATIVE COMPLICATIONS

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EARLY ambulation after major surgery is an adjunct in surgical therapeutics revived with renewed enthusiasm. Ries¹, in 1899, was the first clinician to report his observations when early rising was practiced after major surgery. He recognized no ill effects, his patients were generally stronger, with a surprisingly low incidence of disabling post-operative complications. Early post-operative rising has been accorded extensive clinical trial in Europe since 1909. American proponents of this deviation from conventional practice, such as Leithauser,² Nelson,³ and Nixon⁴ have agreed with their European colleagues by observing appreciable reduction in wound discomfort, a rapid return of the surgical convalescent to full strength, and a diminished incidence of pulmonary complications. Recently acquired knowledge in surgical physiology has enlightened surgeons with the facts of wound healing, in the advantages of using non-absorbable suture materials, and with the optimum nutritional requirements of the surgical convalescent.

It is still an accepted fact that patients who have had the benefits of scientific preoperative preparation, and upon whom a carefully executed surgical procedure has been accomplished, do develop complications unduly prolonging the convalescence of the patient, often serious enough

to eventuate in a fatal issue. There is, however, every concession that bed rest and inactivity are not the only precipitating factors in the incipency of post-operative complications, for it is a known fact that age, the depth of surgical anesthesia, the character of the pathology removed, and the amount and frequency of narcotic administration are notably factors in the production of post-operative complications.

Relatively innocuous procedures and traditionally outmoded concepts of therapy are being replaced by operations of considerable magnitude, with attempts at earlier restoration to normal physiology with resumption of gainful occupation. This is, in the overall concept, revitalized rehabilitation and begins on the first post-operative day. With a gradual perfection in surgical techniques, and with the selective application of anesthetic agents, where with chemical measures to control the coagulability of the blood, with antibiotics to inhibit the spread of specific infections, and the use of suture materials favoring accelerated wound healing with minimal reaction, there are still the dreaded complications of the post-operative period which for convenience may be classified as follows:

- (1) Pulmonary, with atelectasis and the p. o. pneumonia.

- (2) Thrombo-embolic or vascular with silent phlebothrombosis and thrombophlebitis as examples.
- (3) Genito-urinary with the acute retentions, cystitis, and ascending pyelonephritis.
- (4) Gastro-intestinal tract with their bizarre G. I. upsets and symptoms related to the hypoproteinemic state with hypomotility and ileus.
- (5) Psychic.
- (6) Economic.

Pulmonary Complications

Cutler⁵ states that 4.5% of all operated patients develop respiratory complications. King,⁶ Christopher⁷, and Coryllyos⁸ believe that 10-20% of all patients subjected to abdominal surgery develop pulmonary sequelae. After major surgery, regardless of the anesthesia, there follow certain recognizable deviations in pulmonary physiology which, to-wit, are the following:

- (1) There is a definite reduction of diaphragmatic excursion occasioned by the painful splinting of abdominal and thoracic muscles with resultant hypoventilation, and its sequelae.
- (2) There is a voluntary inhibition of the cough reflex due to pain and to too vigorous sedation designed for the comfort of the operated patient.
- (3) There is a pooling of excessive mucus in the tracheo-bronchial tree, which the patient fails to remove because of the pain and fear of wound disruption.
- (4) Insufficient attention by nursing force in the first six hour period following anesthesia ("the stir up period"). Preference of horizontal position after celiotomy.
- (5) Inattention in prophylactic regimen and the judicious use of atropine in patients, apt to pour out large amounts of secretion in response to inhalation anesthesia.
- (6) Reflex narrowing of bronchi as a response to trauma and trapping of inspissated plugs of mucus during surgery.
- (7) Failure to take advantage of tilting technique while operating, using postural drainage to prevent accumulation of fluids.
- (8) Failure to utilize the various methods for the elimination of secretions from the respiratory tract.
- (a) Postoperative use of Bronchoscopic aspiration if postural drainage and cough reflex fail to clear the tracheobronchial tree.

(9) Non-utilization of the lightest plane of anesthesia to accomplishment at hand.

(10) Failure to use inhalation of CO₂ with air, minimizing the absorption of alveolar gases during the post CO₂ depression of breathing during the first six hours at which time a vigorous "stir up" technique should be developed.

(11) Improvement of ventilation by blocking impulses from operative site.

(12) Increasing "vital capacity" by blocking intercostal nerves in patients who have had biliary or upper abdominal operations.

To all of these are added hypostatic congestion, recumbency and pulmonary collapse. Recumbency in the post-operative period tends to limit maximum respiratory excursion.

Early ambulation implies out of bed within the first 24 hour period. This concept is most important, for it has been demonstrated that 50% of all pulmonary complications develop within the first 24 hours, 75% develop by the end of 48 hours, and 90% by the end of the fourth post-operative day.

Experiments have proven that the vital capacity is restored to normal by early walking in two to seven days, and in the average bed patient it is restored in 14 days. Meringmas collected 13 minor pulmonary complications in 527 patients allowed out of bed early with no respiratory deaths. Leithauser² records two pulmonary complications in 900 cases. In a review of the literature, he found four pulmonary embolic deaths in 15,000 surgical procedures where early ambulation was practised. In this particular group of cases, there was but one case of minor atelectasis and one proven case of pneumonia. In a sizable group of cases studied by Blodgett and Beattie⁹ in a well-controlled series at the Peter Brent Hospital, pneumonia was such an infrequent complication that it did not permit of comparative analysis. Significantly in the group studied by these men, a greater incidence of atelectasis was found in upper abdominal wounds where the vertical incisions were used. No cases of atelectasis were found in the lower abdominal wounds among those who rose on the first post-operative day.

Phlebothrombosis and Thrombophlebitis

The incidence of vascular complications is still too great and varies with age, sex, length of procedure and the pathology removed at operation. The incidence of thrombo-embolic acci-

dents is purportedly high in malignancy, and in operations upon the female genitalia. In the experience of various surgical groups, pulmonary embolism is responsible for approximately 6% of deaths following major surgical procedures. Clinical experience verifies that the majority of the vascular thrombo-embolic episodes occur within the first two weeks of operation. Approximately one in four cases is associated with clinical evidence of thrombophlebitis and secondarily, one in four cases of thrombophlebitis is associated with embolism. Of all patients who experience pulmonary emboli about one-half have a single non-fatal embolus, one-fourth have a single fatal embolus, and the remaining one-fourth have multiple emboli, which in 60% of the cases are followed by fatal embolism.

Thus the incidence of venous thrombosis and embolism is a recorded one per cent of all operative procedures, two per cent of laparotomies, and three per cent of all laparotomies performed in female patients. It is mechanically and dynamically apparent that prolonged confinement to bed—whether a patient is operated upon or not—is a factor in the retardation of the blood flow and a contributing factor in the thrombosis of the deep veins of the legs, occasioned by a slowing of the blood stream and an altered viscosity of the blood with concomitant intimal damage.

With varying grades of subclinical shock and hemoconcentration, intravascular clotting is inevitable. Hemoconcentration is further augmented by fluid loss in vomiting and a decrease post-operative fluid intake. Early movement and exercise prevents venous pooling with a more liberal intake of food and fluids.

Dock,¹⁰ of the New York Hospital, reporting on 300 autopsies performed on adults stated that 5% died of pulmonary embolism secondary to thrombosis in the legs or pelvis. Westdahl of San Francisco Hospital demonstrated 13% pulmonary emboli. In 3.5% of the cases, embolism was the immediate cause of death. At the New York Hospital, as many people die of massive pulmonary embolism as of carcinoma of the stomach or bacterial endocarditis.

If thrombo-embolic phenomena are to be averted, a more careful history with respect to antecedent phlebitis is in keeping with the post-operative use of dicumoral and heparin to prevent intravascular clotting.

In order to prevent fatal pulmonary embolism, interruption of the femoral veins at the groins—since it was first described by Homans in 1934—has become an accepted procedure. The purpose of the operation is to interrupt the long column of blood in the femoral and popliteal veins, such that if a clot forms in them that it cannot lodge in the pulmonary artery. Interruption of the superficial femoral vein just distal to its junction with the deep femoral, may be carried out without jeopardizing or compromising too severely the circulation of the extremity irrespective of age. This is the safest level for the average surgeon to interrupt the venous system since the vessel at this point is free from tributaries.

Interruption of the venous system at a higher level, namely the inferior vena-cava, or the common iliac veins, should not be contemplated routinely, but reserved for the unusual case of thrombo-embolic disease in which the femoral veins have been thrombosed for one week or more, and where pulmonary emboli are still occurring. Caval interruption is also indicated in septic pulmonary emboli from sepsis in the pelvis or lower extremity, and is preferable to bilateral common iliac vein interruption because the venous system from both sides can be interrupted through a single procedure.

Wound Healing and Wound Complications

Newburger,¹¹ from experimental work on rats and by controlled clinical experience, concluded that the "lag" in wound healing is decreased by early ambulation. This shortened "lag" period is attributed to an increased blood supply, improved lymphatic drainage, and a decrease of disuse atrophy of surgically repaired parts. The greatest danger of evisceration and evisceration is known to occur between the sixth and eighth post-operative day when the surgeon, following conventional rules, allows the patient some restricted activity.

In early rising patients studied by Blodgett and Beattie,⁹ an incidence of 1.1% wound disruption is reported. Among the non-rising group an incidence of 2.8% of wound disruption is reported. The incidence of all wound infections including minor stitch abscesses was reported as 2.7% in the early risers and 5.7% in the late risers. Infected wounds were highest in cholecystectomies and gastrectomies.

Zollinger and Flynn, studying wounds healing following the use of cotton and catgut in

hernia repair proved that cotton repaired wounds had less general reaction than did catgut repaired wounds. This fact has been an inducement to permit patients out of bed on the first p. o. day. Patients with cotton repaired wounds had a more comfortable convalescence as evidenced by the fact that patients with catgut repaired wounds required more narcotics. By contrast, patients with a cotton wound were able to rest with a sedative instead of a narcotic and were in general more comfortable and inclined to be more active.

Early ambulation is physiologically sound and feasible if the proper placement of incisions, the elimination of tensions, and suture line stresses, and the abolition of dead space in wound closure is adhered to. With comfortable wounds and by strict adherence to the standards of "Holtzmann technique" patients are desirous of assuming early activity.

Genito-Urinary Complications

Urinary retention after major surgery—particularly after gynecological and abdominal operations—has been frequent enough to be of some concern leading to innumerable catheterizations, and resultant cystitis. McLaughlin¹² reporting on 1946 male service personnel and by employing no specific measures has been able to convince both the skeptical and the amused on the advantages of early rising. By allowing patients out of bed on the first day, catheterizations dropped from 21.9% to 0.2%. The advantages of gravity drainage and infrequent catheterization is paramount in the reduction of post-operative g. u. infections.

Gastro-Intestinal Tract

The effect of early walking reduces the degree of post-operative gastro-enteric atony, wards off generalized intestinal distension, and combats the bizarre gastro-intestinal disturbance attributed to innumerable known and unknown causes. The routine third day p. o. purge can in many instances be omitted. The patient who is up and about with a less painful wound restores his normal gastro-colic responses early with a normal bowel habit resulting. Patients can divert their attentions and awareness of autonomic functions, and dismiss the alimentation-defecation train of thought so common in operated individuals.

The Technique of Getting Out of Bed

The patient is turned on the side on which he has his incision. The hips and knees are flexed. The knees and the lower legs are brought to the

edge of the bed. The patient is then raised sideways to a sitting position on the side of the bed. The advantage of sitting up in this manner is to assist the patient in raising himself, using in this manner the flank muscles on the side opposite from his wound. As the patient sits on the side of the bed, his shoes are put on; he then stands up on a footstool. While standing on the footstool he is encouraged to breathe deeply and to cough several times after deep inspiration. This procedure is less painful than coughing in bed, and is often effective in raising mucus plugs from the tracheo-bronchial tree. He is then encouraged to walk eight or ten feet before sitting in a chair. Patients are encouraged to be up two or three times in a 24 hour period. By the end of the third or fourth p. o. day, as a rule no assistance is required. It is of utmost importance to insist that shoes or slippers with heels be worn as a prophylaxis against deep phlebitis of the leg veins. Any one with a short heel cord might injure his calf muscles by standing and stepping down from a stool, resulting in a pathological sequence that might result in a vascular complication of some concern.

DISCUSSION

The manifest advantages of early p. o. rising are several. Psychologically, the early ambulant presents an improved morale. Subsequent operative procedures are contemplated with less fear, and a knowledge that the discomforts of convalescence can be eliminated by a program of accelerated activity and stir up action beginning on the first post-operative day.

One of the most laudable changes in recent decades has been the steady reduction of emergency operations. There is today an emphasis upon a more leisurely technique stressing precision and a genuine respect for tissues that yields generous dividends in improved wound healing, decreased post-operative reaction which favors the adoption of early ambulation. A broad knowledge of fundamental physiological processes enhances the utilization of new therapeutic adjuncts. With but a partial solution of the problems of hydration, disturbances in electrolyte balance, hemodynamics in shock, intestinal obstruction and nutrition we add early ambulation as a therapeutic adjunct as physiologically sound, and capable of reducing morbidity and mortality to an appreciable extent that it merits further study and clinical trial.

CONTRAINDICATIONS

There are only a relatively few contraindications to early ambulation, and these are usually self evident. The most notable of these are shock, severe hemorrhage, peritonitis, insecure gastro-intestinal anastomoses, and the presence or suspected presence of thrombi or emboli. Marked abdominal distension and prolonged preoperative management with copious tamponade or drainage of the abdominal cavity are also considered contraindications to early ambulation.

CONCLUSIONS

(1) Early ambulation is a therapeutic adjunct if wisely practiced, which is capable of reducing post-operative morbidity and mortality.

(2) By early rising, there is a generally recognized improvement in wound healing with fewer disruptions, and lessened incidence of silent phlebothrombosis and deep-vein thrombophlebitis, with an improved patient morale.

(3) There is an appreciable decrease in pulmonary complications, urinary retention, fewer g. i. upsets, and a more rapid return to normal alimentation via the per-oral route with resultant increase in strength.

(4) The economic value of a shortened hospital stay is a worthwhile aid to the patient, and to the hospital with a definite patient overload.

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MISCELLANEOUS SECTION

Modern Medical Public Relations Pay Dirt

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It is generally agreed the term Public Relations simply describes a formula for deserving, winning, and holding the confidence and friendship of the public. It means doing a good job better and telling about it best. I might urge a slightly more specific or narrower definition than Mr. Perry has given, because a specific definition permits reasonable limitations to be placed on what might be expected from a Public Relations program per se and provides some basis upon which we can recognize pay dirt—if and when we do hit it. That definition is as follows: Medical Public Relations is the function of medical leadership which evaluates public attitudes, identifies the policies and procedures of organized medicine with the public interests, and executes a program of action to earn public understanding and acceptance.

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Perhaps oversimplified this narrower definition says: Medical leadership must find what is wanted, obviously and sincerely try to gratify the wants, convince people that they like what they are getting.

It seems necessary at this time to recapitulate or evaluate the problem facing medicine. This problem has three phases. (1) The economic phase involving the placement of physicians and the costs of medical service. (2) The social phase which is essentially the combined effect on public opinion of all services and activities of doctors, (A) as individuals, and (B) collectively. (3) The civic or governmental phase which pertains to the control of medical practice by either voluntary, private in nature, or compulsory, governmental in nature. These three phases of the problem—economic, social and civic are, of course, interrelated, interlocking, and interdependent. But if we can use the specific defini-

tion and concept of public relations, we see that it applies in its most real sense to the social phase of the problem facing medicine. To be specific, if the problem of placement of doctors and the cost of medical care is solved, it will be much easier for a public relations program to convince the public that individual doctors and organized medicine are satisfactorily serving the needs and interests of the public under the present voluntary system of medical practice. And if the public relations program accomplishes the task of convincing the public to that effect, we have hit pay dirt and it will be an easy task for our legislative representative to convince the Federal Congress and all state legislatures that compulsory government medicine is unnecessary and extravagant and that other legislation, *requested* by organized medicine, should be passed.

If you will accept the definition and the hypotheses regarding the overall problem of medicine, then we have boundaries to our field of medical public relations and can, within those boundaries, find out whether medicine's Public Relations has the resources, the possibility, and the probability of hitting pay dirt.

Gazing over the public relations field and our prospect for hitting pay dirt, we see that one characteristic predominates. The characteristic is that of selling. By "selling" I do not mean "merchandizing." I refer to the wider concept of influencing the public to accept an idea, person, or product.

Medical Public Relations has an *idea* to sell. The idea is that satisfactory progress is being made toward the ideal of a world in which everyone has maximum health.

Medical Public Relations has a *person* to sell—the corporate person of Organized Medicine, having the personal characteristic that it works in the public interest, and is making satisfactory progress toward the complete health ideal.

Medical Public Relations has a *product* to sell—the product is health education.

The assertion that public relations must sell the idea, person, and product referred to can easily be substantiated, but perhaps that is unnecessary. To find pay dirt we must first explore the possibilities, the probabilities, and the tools public relations has for selling the idea, the person, and the product.

The possibilities are limited by time, interest, and money. Since legislation of some kind may be imminent, the time period for raising public

opinion regarding both the idea and the person to a satisfactory level is not unlimited.

Because public relations demands a cooperative movement, interest taken in public relations can limit the possibilities for its success, but interest, fortunately, is increasing.

Money cannot buy good public relations but finances are essential in order to maintain an effective program, and money is available.

It can be said that with the exception of the time element the possibilities for success of medical public relations are most favorable, limited only by the wishes and efforts of organized medicine itself.

The probabilities for success which public relations has in solving the *social* problem depend upon (1) world-wide trends toward the left—over which organized medicine has relatively little control, (2) the solving of the economic problem of supplying all demands for medical care at universally buyable prices—over which organized medicine has some control, and (3) the skill and extent to which organized medicine uses the public relations tools available to it—over which the medical profession has almost complete control.

The world-wide trend is still toward the left. The probability is that no radical change in this trend will evolve in the immediate future. Medicine is rapidly solving the economic problem through voluntary pre-paid health insurance but much remains to be accomplished before there is an ideal distribution of doctors or maximum medical care for all within the financial resources of all. The probability is that there will be continued growth of voluntary pre-paid health insurance, at a slower rate, and that federal legislation as Doctor Lawrence has pointed out this afternoon will be passed to attempt to assist in some way both medical scientific progress and the providing of medical facilities and services for at least some additional low income groups. The third probability—that of the skill and extent to which organized medicine will use public relations tools is highly regarded because of a continuing surge of interest in socio-economic problems throughout the profession—problems which are directly affected by public opinion, thereby necessitating continued public relations efforts.

We now arrive at the point where we can consider the third factor which is: What public relations tools are available to organized medicine

and what use is being made of them. These tools are divided into four main categories: (1) The activity of the individual doctor of medicine in his private medical practice, (2) activity of the individual doctor of medicine as a member representative of organized medicine in pursuits additional to medical practice, (3) the thinking and activity of organized medicine as a group, and (4) the effective employment by organized medicine of personnel, sales techniques, and communication media.

Of the first tool—the activity of individual doctors of medicine in medical practice—I would like to refrain from any comment other than the evident fact that “impractices” in the public relations sense by a very few doctors can do great injury to the public relations of organized medicine as a group. The ethics committees of both state and county medical organizations are well known and most effective, but there are no medical public relations ethics committees to take care of the situation in which a small minority of doctors take certain actions which do not constitute a breach of medical ethics, but do represent a breach of medical public relations ethics. Perhaps we can hit pay dirt if some sort of medical public relations ethics committee could be developed.

Of the second public relations tool—the activity of the individual doctor of medicine as a member representative of organized medicine in pursuits additional to medical practice—a great deal can be said. Of all professions, industries, and businesses, none can compare with the profession of medicine in the field of active organized effort. You have the leadership of the American Medical Association and of your state and county medical societies to thank for that. To compare the time and effort given by medical leaders to organized medicine to that given in many other businesses and professions to their organizations is like comparing the Empire State Building to a Chic Sale creation! But we must note also that a great deal more activity for organized medicine remains to be developed on the part of those who are not leaders, but who could more actively follow. The average doctor of medicine is in many cases completely uninformed of the projects, proposals, and even purposes of his organization. So, as a salesman of these projects, proposals, and purposes, this average doctor of medicine fails, quite naturally. Effort is being made to better inform him, but

we see the effort is not yet successful, nor is its import appreciated. For example, one medical society was recently quite surprised to learn that at a famous medical school in another state, one hour per week in the senior year was given over to lectures and discussions of the practice of medicine from a socio-economic standpoint. Just one hour per week to the part of medical practice which today either makes or breaks the success of a doctor of medicine, and certainly affects the success of medicine as a social force! Hitting pay dirt from a public relations standpoint, indicates it should not be one hour per week given to this “unscientific” subject, it should be one hour per day. And yet the medical school in which the one hour per week is given is the exception. Few other medical schools offer *any* time in their curriculum for such a subject. It is no wonder that the average doctor upon graduation from his scientific training period is a poor representative of organized medicine, and is difficult to sell on the idea that organized medicine has great values for him and deserves his active support. To sum up this public relations tool—that is, the activity of the individual doctor of medicine as a member representative of organized medicine in pursuits additional to medical practice—an inventory shows that the leaders in organized medicine give unlimited time and effort to the organization's programs, that the average doctor of medicine is not well informed on his organization's activities, and, consequently, often fails as the representative and “salesman,” that a great deal of support of the organizational work from the younger doctor is missing, and that postgraduate training along socio-economic-public relations lines by organized medicine is definitely indicated.

The third tool—the activity of organized medicine as a group—depends, of course, to a great extent on the public relations tools I have already listed. But considered from the view of projects and policies proposed and effectively forwarded, remarkable thinking and action has taken place. A trip through the American Medical Association building, the reading of the A.M.A. Journal, and a study of the publications of the various A.M.A. Bureaus indicates that constructive thought is being given to a myriad of both scientific and socio-economic problems. On the national level either serious thought or an actual live project is being directed to *all* existing medical socio-economic problems.

However, the inventory is not so complete on the state and county levels. Problems exist in many states of which organized medicine seems not to be even aware. In some state medical societies, no single individual remains in a continuing role of coordinating leadership, and, as a result, the action of these states, and their county societies, is sporadic, and, in some cases, inconsistent. Because in some societies long range planning is not carried out due to lack of continuous coordinated leadership, intelligent actions of the moment often tend to be based upon expediency. This has the public relations effect of giving the general action of the group the appearance either of untrustworthiness, selfishness, or lack of responsible organization. Then too, many state and county societies have inadequate funds to do a good job—or do it better. This, in almost every instance can be traced to one item already inventoried: That the average doctor is not properly informed of his organization's activities. If and when he is informed, we hit pay dirt, and obtaining funds ceases to be an unsurmountable problem. Of course, the lack of adequate funds hampers the use of the fourth tool—that of employment of proper personnel, sales techniques, and communication media.

To sum up this third tool—that of the activity of organized medicine as a group—we can say that action and thought are being given on the national level to all problems, but that action on the state and county levels, while most effective in some states and counties, is both sporadic and ineffective in many others. And since the national organization can work effectively only through state and county organizations, the nationally organized effort is seriously hampered.

We come now to the fourth and last tool of public relations, that of the effective employment of proper personnel, sales techniques, and communication media. Public Relations committees often spend hours determining what media to use—whether to spend more on radio and less on newspapers, whether to use pamphlets or to develop speakers bureaus, how much this type of publicity should cost, and whether the pamphlets should be in one color or in red, white and blue!

On the other hand, many societies' public relations committees are spared this tedious technical work and hit pay dirt by the employment of public relations counsels and/or public relations counselling services.

If we had time, we might include a detailed presentation of the public relations counsels and counselling services which are currently employed by organized medicine, but perhaps we can sum up the situation by saying that qualified persons and firms currently are being employed specifically for public relations purposes on the state and national levels, and by some of the larger county societies. The American Medical Association, as you know, recently employed new public relations counselling services, and 11 state medical societies and four county societies now employ such services. In this respect it might be noted that at the present time there is no single authorized agency to coordinate the public relations efforts of the respective state medical societies which make up the American Medical Association. We need such an agency to help in hitting pay dirt.

The use of sales techniques is not formally promoted by medical organization. There seems to be a shyness towards studying the techniques of "how to win friends and influence people." An attempt is being made through the A. M. A. Grass Roots Conference to give more socio-economic instruction to state and county medical society officers. The single day given to this conference seems most inadequate if the Grass Roots Conference developed into a semi-annual training course of a week's duration that the art and science of medical organization and medical public relations would be greatly benefited.

One sales technique, that of enlisting the assistance of other groups in solving problems of health, is being used through the promotion of national and state conferences on such subjects as medical service and public relations and by activity causing the development of national, state, and local health councils. Another sales technique, the art of infiltration of members into civic groups for the specific purpose of promoting organized medicine's projects and policies is not actively promoted as is the case with many labor, political and business groups. Many individual doctors do belong to service and other civic groups, and in some of these do "carry the ball" for organized medicine, but this is by happenstance rather than plan.

So far as the various communication media are concerned, medicine's greatest program has been in the development of National, State, and County medical journals. Following the example of the brilliant editor of *The Journal of the Amer-*

ican Medical Association, and aided by adequate advertising by our pharmaceutical friends, medical journals have far surpassed publications issued by any other single business, industry, or profession. While these are professional journals and are not widely disseminated to the lay public, their publication brings about a certain cohesiveness of effort that is reflected in public relations through organizational activity. We are hitting pay dirt with this media.

The second place is newspapers. The greatest value of newspapers as a public relations communication media has been in the publication of news articles and feature stories on medicine and medical organization. In some states the newspapers tend to be a media of publicity rather than a public relations media. In these states it is because of the excellent scientific work of doctors and the general respect of their community that gives medicine a good press if it has one. In other states newspapers are used as public relations media for facilities that have been set up whereby the newspaper man can and does voluntarily check his stories with medical representatives before publishing "news" given him by irresponsible groups. This situation offers a protection against false accusations, a protection which a published denial of a false accusation can never give.

Practically all state medical societies offer news to newspapers; of late, medical organization has permitted doctors' names to be used in connection with such impersonal news without criticism accruing to the individual doctor. Many state societies provide a health column weekly to the newspapers. Some states have used newspaper advertising with some effectiveness. This newspaper advertising has been limited, of course. Sometimes it has been used to offer an educational medical service with credit given to the medical organization. More often newspaper advertising has told of organizational projects and has usually attempted to identify the doctor with health movements which are recognized by the general public to be conducted in the public interest. Pay dirt has been hit with newspapers—when they are fully and properly read.

In third position among communication media is direct mail—pamphlets, reprints, letters, etc., usually disseminated through the mails to the reading public. These have been directed, in the main, to doctors of medicine, just as have been the journals. Perhaps that is the reason the

pamphlets tend to be less attractive in lay out and less simple and direct in content than is the case with pamphlets issued to the lay public by business and governmental organizations. There is a greater tendency of late to issue this direct mail to the lay public—a tendency which promises an increase in the effectiveness of this media and hitting pay dirt.

In fourth place is the use of radio. National radio programs have been attempted with varying success but never with a consistently high and prolonged Hooper rating. Various state medical society radio programs on scientific medicine have been and are being carried out with sufficient success to remain on the air. Radio programs featuring material of a socio-economic nature have been attempted in many states with few successes—most radio stations shying away from "controversial subjects" as they put it. In those states in which such radio programs have hit pay dirt, it has been due to a judicious mixture of scientific material and material of a medical socio-economic nature.

A fifth communication media, that of cinema, has been grievously neglected by medical public relations insofar as the lay public is concerned. It is true that the Hollywood version of the doctor has been presented often and it is also true that medicine has used the moving pictures for scientific purposes to good effect. There have been some films of an educational nature developed on the national level for use by doctors to lay groups, but the use of educational films distributed through the medium of the commercial theater, which is by far the most effective means, has been almost entirely ignored with the exception of films used in connection with charity drives. Other communication media such as bill boards, match folders, throw aways, etc., have not lent themselves to medical public relations and have not been used. Other avenues of education such as the schools has been sporadically used, and in the majority of cases on the local level. This is a potent field—Hitler taught us that—and American socialists are cultivating it assiduously. The youth of today vote tomorrow. They are not at the present time receiving the whole truth regarding medical matters.

To sum up this fourth tool of public relations we can say that more and more public relations personnel are being employed; that the maximum control of medical public relations efforts rests with top leaders of medicine; that little

formal coordination exists between state medical societies in public relations programs; that the various sales techniques have hardly begun to be formally developed by the average doctor of medicine but are being carried out to some extent in group effort; that the avenues of communication and publicity have been explored but with the exception of medical journals, and the possible exception of newspapers, medical public relations has scarcely scratched the surface of the glorious facilities which exist in America.

In conclusion, to sum up whether we are hit-

ting pay dirt, the statement might well be made that medical public relations has made a great deal of progress in a very short time; that public relations know-how is being attained or employed; that a great amount of hard public relations work remains to be done, and that with the present running start great progress in public relations can be expected during the next few—what seem, at this juncture—to be crucial years. Time is still the imponderable. Whether we have time to tell our story of a good job being done best our way, only time will tell.

Statement of the Present Policy of the American Trudeau Society, Medical Section of the National Tuberculosis Association, on BCG Vaccination

The members of the Society and other physicians in the United States have been interested for many years in the active immunization against tuberculosis with BCG. The expansion of public health activities in the field of tuberculosis control by official and voluntary agencies and the acquisition of new knowledge concerning immunity in tuberculosis have prompted the American Trudeau Society to make the following observations and recommendations:

- I. BCG vaccine, prepared under ideal conditions and administered to tuberculin negative persons by approved techniques, can be considered harmless.
- II. The degree of protection reported following vaccination is by no means complete nor is the duration of induced relative immunity permanent or predictable. The need for further basic research on the problem of artificial immunization against tuberculosis is recognized and is to be emphasized. Studies should be directed: (a) toward the improvement of the immunizing agent, (b) to the development of criteria for vaccination and re-vaccination and (3) to determine more accurately which groups in the general population should be vaccinated. Several well-controlled studies are underway at the present time and it is expected that others will begin within the near future.

III. On the basis of studies reported in the European and American literature, an appreciable reduction in the incidence of clinical tuberculosis may be anticipated when certain groups of people who are likely to develop tuberculosis because of unusual exposure, inferior resistance, or both, are vaccinated.

- A. In the light of present knowledge vaccination of the following more vulnerable groups of individuals is recommended provided they do not react to adequate tuberculin tests.
 1. Doctors, medical students and nurses who are exposed to infectious tuberculosis.
 2. All hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis.
 3. Individuals who are unavoidably exposed to infectious tuberculosis in the home.
 4. Patients and employees of mental hospitals, prisons and other custodial institutions in whom the incidence of tuberculosis is known to be high.
 5. Children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

(Report submitted to the ATS Executive Committee at its meeting in Chicago January 22, 1948, by Dr. H. McLeod Riggins, New York, N. Y., chairman of the Chemotherapy Committee, and adopted by the Executive Committee.)

B. Vaccination of the general population is *not* recommended at this time except for carefully controlled investigative programs, which, as a rule, will be best carried out under the auspices of official agencies such as the U. S. Public Health Service, state and municipal health departments and other especially qualified groups.

IV. BCG vaccine should not be made available for general distribution in the United States at this time because: (a) the most effective strain of BCG has not been agreed upon nor has fully satisfactory standardization of the vaccine been achieved, (b) the best qualified experts have not agreed as to the most effective method of vaccination and (c) fully satisfactory arrangements have not been perfected for transportation and storage of the vaccine.

The vaccine should be prepared only in accredited laboratories especially devoted to this task, in which virulent tubercle bacilli are not cultivated or handled and in which all other possible precautions are exercised to assure safety and quality of the product.

Adequate record systems should be devised for management of the statistical problems involved in recording and following large numbers of vaccinated people. These and other problems of particular importance are now being studied on an extensive scale by official and voluntary agencies in the United States and in close collaboration with European scientists experienced in this field.

V. The Society believes that since BCG vaccination affords only incomplete rather than

absolute protection, the most effective methods of controlling tuberculosis in the general population are (a) further improvement of living conditions and the general health, (b) reduction of tuberculous infection, which can be accomplished by modern public health methods and the unremitting search among presumably healthy individuals for patients with infectious tuberculosis, (c) prompt and adequate medical and surgical treatment of patients with active disease, (d) segregation and custodial care of those not amenable to accepted forms of therapy and (e) adequate rehabilitation.

Fortunately, great advances have been achieved during recent years in the development of diagnostic methods applicable on a mass scale and there have been significant improvements in the surgical and medical treatment of tuberculosis. The expansion of modern diagnostic, therapeutic and rehabilitation facilities is required at this time to make full use of these new methods which can accomplish further dramatic reduction of tuberculosis mortality and morbidity rates in the United States.

"It is to be emphasized that BCG vaccination must not be regarded as a substitute for approved hygienic measures or for public health practices designed to prevent or minimize tuberculous infection and disease. Vaccination should be regarded as only one of many procedures to be used in tuberculosis control. Vaccination seems unwarranted: (a) in areas in which the tuberculosis mortality rate is extremely low and (b) in localities in which the tuberculin test is of especial value as a differential diagnostic procedure."

Poliomyelitis Current Literature

345. Jones, Asa and Dickson, Frank D. (Kansas City, Missouri)

AN ANALYSIS OF ONE HUNDRED CASES OF POLIOMYELITIS. J. Missouri M. A. 44:881-882 (Dec. 1947).

One hundred cases at St. Luke's Hospital, Kansas City, Mo., in 1946 are analyzed. Twenty-eight cases were treated with prostigmine, with little or no effect. Sixteen cases were treated with curar, which had little effect on paralyzed muscles but did make patients more comfortable. The mortality in this series was 9 per cent. There were 6 pregnant women in the series.

336. Boines, George J. (Wilmington General Hospital, Delaware).

DIAGNOSIS OF BULBAR POLIOMYELITIS. Delaware State M. J. 19:209-212 (Nov. 1947).

"The early diagnosis of bulbar poliomyelitis is made by the early thorough examination of the muscles supplied by the cranial nerves. Early hospitalization is very important for the efficient observation and treatment of bulbar poliomyelitis because of the rapid spread of the disease into the respiratory center."

(Author's summary)

349. Metropolitan Life Insurance Co. (New York, N. Y.).

THE INCREASED TOLL OF CRIPPLES FROM POLIOMYELITIS. Statistical Bull. 28:5-8 (Sept. 1947).

It is estimated that as of January 1, 1947 there were nearly 74,000 persons under 21 years of age crippled by poliomyelitis in the United States. The number has increased about 10 per cent in the past two years and almost 45 per cent in the past seven years.

This study was based on the numbers of crippled children on State registers as reported to the U. S. Children's Bureau in December, 1939 and December, 1944.

338. Cuning, Daniel S. (Manhattan Eye, Ear & Throat Hosp., N. Y. C.).

TONSILLECTOMY AND POLIOMYELITIS. Arch. Otolaryng. 46:575-583 (Nov. 1947).

A report of a nationwide survey by the American Laryngological, Rhinological and Otological Society on the relation between tonsillectomy and poliomyelitis. Questionnaires were tabulated from 13 states regarding 2,476 poliomyelitis

cases. It was found that 2.5 per cent of the cases had been preceded by tonsillectomies within two months preceding onset of poliomyelitis.

It is desired to compare the incidence of poliomyelitis in group of tonsillectomized children with the incidence in the general child population. In order to accomplish this, it is urged that the survey be continued.

339. Faber, Harold K., Silverberg, Rosalie J., and Dong, Luther. (Stanford Univ. Sch. Med.)

EXCRETION OF POLIOMYELITIS VIRUS. Proc. Soc. Exper. Biol. & Med.)

"Poliomyelitis virus when applied to the central end of a divided branch of the trigeminal nerve in the cheek travels centripetally to the corresponding semilunar ganglion within three days. Centrifugal spread to the nasopharyngeal surfaces, which are supplied by the trigeminal nerve, was demonstrated by detection of virus in the nasopharyngeal washings on the third and fourth days. Virus was also found in the stools on the fourth but not on the third day, suggesting that it had been swallowed. It is suspected that excretion, like invasion, of poliomyelitis occurs through axonal channels.

Cancer Current Literature

758. McSwain, Barton and Spencer, F. C. Vanderbilt University, Nashville, Tenn.

CAROTID BODY TUMOR IN ASSOCIATION WITH CAROTID SINUS SYNDROME: REPORT OF 2 CASES. Surgery 22: 222-229 (Aug. 1947).

"Presentation of a case of carotid body tumor in association with carotid sinus syndrome of the vagal type is presented. Cure was effected by extirpation of the tumor with segments of the common, external and internal carotid arteries."

"A second patient with carotid body tumor is described who gave a typical history of carotid sinus syndrome which disappeared spontaneously. Two possible explanations of the spontaneous disappearance of the syndrome are given."

Author's Summary.

19 references.

759. Marinelli, L. D., Foote, F. W. et al. Memorial Hospital, N. Y. C.

RETENTION OF RADIOACTIVE IODINE IN THYROID CARCINOMA. HISTOPATHOLOGIC AND RADIOAUTOGRAPHIC STUDIES. Am. J. Roentgenol. 58:17-30 (July 1947).

Report of a three year study on tissue studies and radioautographs from 19 cases of thyroid carcinoma.

760. Mills, Warren H., Dominguez, Rafael, and McCall, Julius W. St. Luke's Hospital, Cleveland, Ohio.

SIMULTANEOUS CARCINOMA AND MALIGNANT LYMPHOMA OF THE LARYNX. Laryngoscope 57:491-500 (July 1947).

"A case of double primary malignant tumor of the larynx is presented. One tumor is a squamous cell carcinoma of the right vocal fold. The other tumor is a Hodgkin's sarcoma of the right ventricle. The two tumors are in contact with each other in the upper part of the larynx only.

A table is presented listing the cases of multiple malignant tumors in which the larynx is involved."

Author's Summary.

36 references.

756. Horn, Robert C., Jr., Welty, Robert F., et al. University of Pennsylvania, Philadelphia, Pa.

CARCINOMA OF THE THYROID. Ann. Surg. 126:140-155 (Aug. 1947).

71 cases of carcinoma of the thyroid and 3 of lateral thyroid carcinoma treated at the Hospital of the University of Pennsylvania during an 11.5 year period have been reviewed. 62 thyroid carcinomas were encountered among a series of

2,079 surgically treated thyroid lesions, an incidence of 3.0%. This is an incidence of 5.4% of carcinoma in 1,135 surgically treated nodular goiters.

23 references.

778. Simonds, F. L. and Anderson, Leo. Omaha, Nebraska.

PRIMARY CARCINOMA OF THE LUNG. Nebraska State M. J. 32:311-315 (Aug. 1947).

"Observations concerning present day methods of the diagnosis and treatment of primary lung tumors have been made. The low operative mortality after surgical intervention in recent years has been emphasized. Attention has been called to palliative treatment by Roentgen therapy, which may add months or years to the patient's life and comfort." Author's Summary.

7 references.

802. Brown, C. J. O. Alfred Hospital, Melbourne, Australia.

SURGICAL TREATMENT OF CARCINOMA OF THE OESOPHAGUS, WITH REPORT OF 3 CASES. M. J. Australia 2:10-12 (July 15, 1947).

"Transthoracic oesophago-gastrectomy with oesophago gastrostomy presents a practical approach to the problem of carcinoma in the lower 2/3 of the oesophagus or in the cardiac end of the stomach. It is probably that total gastrectomy is more readily performed by this route than from below."

"Patients tolerate the operation very well; and even if the growth recurs, they have a period of relief and are saved the distress of death from starvation." Author's Summary.

11 references.

MORE CANCERS FOUND AT DETECTION CENTERS THAN EXPECTED

A nine-months' survey of cancer detection centers in one state shows that 10 to 15 times as many cancers are being discovered in male examinees, and twice as many in females, as would be expected from the general cancer prevalence rates by sex and age. These facts are revealed in a report by Howard W. Jones, Jr., M. D., and W. Ross Cameron, M. D., Baltimore, in the December 13 issue of *The Journal of the American Medical Association*.

The two doctors state that from November 1, 1946 to July 31, 1947 a total of 1,709 persons were examined in cancer detection centers in Maryland, 336 being men and 1,373 women. By means of the expected prevalence and detectability rates only 0.56 cases of cancer would have been anticipated in the male and 4.9 cases in the female examinees. Actually eight cancers were found among the men and nine among the women.

Although a cancer detection center represents a case finding clinic to which only persons who are free from cancer symptoms are supposed to be admitted for examination, the writers suggest that a high proportion of the patients come to such centers because of minor complaints or because of the occurrence of cancer in their immediate families. They are therefore not a true cross section of the population as a whole.

"An incidental, but important finding," the doctors also write, "was that 36 per cent of men and 51 per cent of women examinees were referred to their physician because medical or surgical conditions other than cancer were discovered."

Reprinted from *Illinois Medical Journal*, February, 1948.

Statement

Submitted on Behalf of the American Medical Association by Dr. James R. Miller, to the House Committee on Interstate and Foreign Commerce, on H. R. 5644, Introduced by Representative Dolliver; and H. R. 5678, Introduced by Representative Priest, Identical Bills to Assist the States in the Development and Maintenance of Local Public Health Units, April 9, 1948.

Mr. Chairman and
Members of the Committee:

My name is Dr. James R. Miller. I practice medicine in Hartford, Connecticut and am here as a member of the board of Trustees of the American Medical Association. I appreciate this opportunity to record our approval of the objectives of this legislation, for the Association has for many years been active in promoting

the establishment and maintenance of public health activities, on federal, state and local levels.

As evidence of our early interest in the subject, the minutes of the meeting of the Association in 1883 contained a report of a survey that had been made on behalf of the Association to ascertain what states and counties had at that time health departments.

In more recent years, the House of Delegates, in 1942, adopted the following resolution expressive of a continued concern in public health activities:

Resolution from Section on Preventive and Industrial Medicine and Public Health on Civilian Health Protection in War

Dr. Stanley H. Osborn, Section on Preventive and Industrial Medicine and Public Health, presented the following resolution, which was adopted on motion of Dr. Osborn, seconded by Dr. George Blumer, Connecticut, and carried:

WHEREAS, A major inadequacy in the civilian health protection in war as in peace time continues from the failure of many states and of not less than half the counties in the states to provide even minimum necessary sanitary and other preventive services for health, by full time professionally trained medical and auxiliary personnel on a merit system basis supported by adequate tax funds from local and state, and where necessary from federal sources; therefore, be it

RESOLVED, That the Trustees of the American Medical Association be urged to use all appropriate resources and influences of the Association to the end that, at the earliest possible date, complete coverage of the nation's area and population by local, county, district or regional full time modern health services be achieved.

Proceedings of the House of Delegates, American Medical Association, Atlantic City, June 8-12, 1942, page 71.

Subsequently, copies of this resolution were forwarded to each state medical association in an effort to stimulate activity directed toward the achievement of the objectives sought by it.

Editorials have from time to time been published in The Journal of the Association in a still further effort to extend public health coverage to the nation and the Association has collaborated with other organizations to promote this objective.

Not only has the Association consistently sought to extend public health coverage but it has also recorded its approval of federal aid to assist in the development of local health units. Point 2 of the Ten Point National Health Pro-

gram of the Association emphasizes that the providing of preventive medical services through professionally competent health departments with sufficient staff and equipment to meet community needs is recognized as essential in a well-rounded health program. It is also stated that "The principle of federal aid through provision of funds or personnel is recognized with the understanding that local areas shall control their own agencies as has been established in the field of education. Health departments should not assume the care of the sick as a function, since administration of medical care under such auspices tends to a deterioration in the quality of the service rendered."

Again, in indicating the progress that has been made in accomplishing the objectives of the Ten Point National Health Program, a statement was submitted by the Board of Trustees to the House of Delegates at the Cleveland meeting in January of this year. In pointing out progress under Point 2, it was stated:

"The Board of Trustees has supported pending legislation for federal aid in the establishment of local health units with emphasis on the principle that medical care and treatment are not properly functions of public health units."

The statement submitted by the Board of Trustees was approved by the House of Delegates.

To the extent, therefore, that H. R. 5644 and H. R. 5678 will provide federal aid in the development of local health units, they conform to the position that the Association has taken and on behalf of the Association I record our approval of them in principle.

The Bureau of the Census recently issued a report pointing out that there were approximately 155,100 units in this country apart from federal and state governments. These included 38,200 county, town, township or city jurisdictions, 108,600 school districts and 8,300 special districts. The report of the Subcommittee on Local Health Units of the American Public Health Association in 1945 reported that "at present there are approximately 18,500 local governmental jurisdictions, apart from school districts that may be responsible for local public health service." This same report came to the conclusion that what was needed was 1,200 county, county-city or multi-county units each including a minimum of 50,000 people.

These small health jurisdictions were developed in the days of the horse and buggy and of dirt roads. In many instances, they do not include a large enough population to afford a full-time health officer, sanitary engineer and public health nurses. A modernization of our public health and administrative set-up is long overdue and this legislation may well supply the needed impetus.

Section 3 (d) defines a "local public health unit" as a governmental authority of a local area "basic public health services," but there is no definition contained in the legislation as to what shall constitute "basic public health services." Section 5 (b) (4) does authorize the Surgeon General of the Public Health Service by regulation to prescribe the "types of health services" which shall be considered basic public health services. Before promulgating any such regulation, the Surgeon General will be required to consult with a conference of state health authorities whose agreement he shall obtain, in so far as practicable, prior to the issuance of the regulation.

It is our viewpoint that the law itself should state what shall constitute "basic public health services" and, as a corollary, that such determination should not be left to any federal administrative officer. If such a definition can be formulated under a regulation promulgated by the Surgeon General of the Public Health Service, then it seems to me that it could as readily be formulated now and incorporated as a part of the legislation.

Dr. Haven Emerson, Chairman, Subcommittee on Local Health Units, Committee on Administrative Practice, American Public Health Association, has stated that the six basic functions of a local health department include:

1. Vital statistics, or the recording, tabulation, interpretation, and publication of the essential facts of births, deaths, and reportable diseases;
2. Control of communicable diseases, including tuberculosis, the venereal diseases, malaria, and hookworm diseases;
3. Environmental sanitation, including supervision of milk and milk products, food processing and public eating places, and maintenance of sanitary conditions of employment;
4. Public health laboratory services;
5. Hygiene of maternity, infancy, and childhood, including supervision of the health of the school child;

6. Health education of the general public so far as not covered by the functions of departments of education.

I suggest that Section 3 of the pending bills be amended by adding a definition of basic public health services to include the foregoing functions and to exclude "the care of the sick" as a function except where that care is necessary for the protection of the health of the community.

This legislation as now drafted confers on the Surgeon General of the United States Public Health Service the right to withhold approval of a state plan and to withdraw approval of a state plan if in his opinion it does not conform (1) to the specifications set forth in Section 6 (a) and (2) to the regulations promulgated by the Surgeon General as authorized by Section 5 (b). Apparently, the Surgeon General will make the final determination, subject to the provision contained in Section 9 (a) that the law is to be administered by him under the supervision and direction of the Administrator of the Federal Security Agency. I suggest the desirability of assuring an appeal by a state whose plan has been disapproved, either to a public health advisory council, administration of the law, or to the courts, or to both.

I would suggest, too, the desirability of stating in Section 2 as a part of the Declaration of Policy and Purpose that it is the intent of the Congress in enacting this legislation to preserve to the states and to their local units the directing control of the operation of any public health units to be provided under a state plan and that authorized regulations must be promulgated with that objective in view.

This is most important legislation and in my judgment it will function more effectively with the least amount of interference and direction by government.



Arizona Medical Problems

CONSULTATION AND CASE ANALYSIS

ARIZONA MEDICINE again presents an unsolved and difficult case from the practice of Arizona physicians, with the Case-Analysis and comments of a specially-chosen and nationally-known Consultant.

Any physician who has an undiagnosed case which has defied other methods of solution may send it for consideration. The case should be completely worked up, but an editor will help compose the report. Whenever the need for an answer is urgent, the Consultant's reply will be sent direct to the submitting physician, before publication.

Please send communications and data to Dr. W. H. Oatway, Jr., 123 S. Stone Avenue, Tucson, Arizona, or care of The Editor, Arizona Medicine.

The present case is one of obscure chronic arthritis in an adolescent. The consultant is Dr. Edward W. Boland of Los Angeles, a specialist in arthritis. Dr. Boland is a graduate of St. Louis University Medical School, was an associate of Dr. Phillip Hench at the Mayo Clinic for several years, and during the war was Chief of the Division on Rheumatic Diseases at the Army Rheumatism Center, Army and Navy General Hospital, Hot Springs, Arkansas. He is a member of numerous medical societies, is an officer of the American Rheumatism Association, has written many papers on various aspects of arthritis, is an assistant professor of clinical medicine at the University of Southern California Medical School, and a Fellow of the American College of Physicians.

CASE NUMBER VII

The patient is a white female youth of 17 years. Her present illness began ten months ago in April at her home in a mid-western town. It consisted of a mildly painful swelling of the ankles, knees, and finger-joints; it was transient at the onset, with some days of freedom; she had no fever, but her appetite was poor; and there was a poor mobility of her eyes. There was no diagnosis or treatment at that time, though she rested when it seemed necessary.

Five months later, in August, her feet became moderately swollen and, after visiting a clinic, she was sent to a hospital. Her general feeling and swelling of the joints improved, but no diagnosis was made. She was able to go to school.

In October her back became "sore," there was a slight swelling of the feet and knees, and it was noted that she had a fever. Her normal weight had been 132 pounds, and after a loss to 120 pounds, it had improved and then dropped again. She was put to bed, given injections of "protein-iron" and Vitamin B, and given a "sulfa drug" by mouth. No change in her condition resulted.

In January she came to Arizona with her mother. Episodes of fever recurred about once a week or so, lasted for a few days and reached levels of 101 to 102.5 degrees. The high points were associated with a chill, which was usually preceded by a sweat. Her appetite was poor, she had nocturia, and there had been no menses for four months. She had a slight cough and expectoration each morning. A neighborhood physician was called, and after a cursory examination he ordered an x-ray of the chest (which was negative) and prescribed 100,000 units of penicillin a day for 3 days intramuscularly. The fever subsided, though about as usual.

A month later the family moved to Tucson and the present physician was called. Her general condition was the same; she was bedfast; her weight had decreased to less than 90 pounds; and her medication consisted of a vitamin concentrate and two kinds of ferrous iron tablets.

The family history was negative for pertinent illnesses. The patient had always been well except for pneumonia at the age of 7 years.

On physical examination she was seen to be pallid, cadaverous, and apathetic. The tongue was pale; the membranes of the nose and throat were slightly injected; there was purulent material in the left nares; the sinuses were not tender; and there was no adenopathy. The abdomen was scaphoid, and the spleen was not palpable on inspiration. The lungs were clear by stethoscope. The heart was small; the pulse was 96 per minute and regular; the B/P was 108/85; and there was a soft basal systolic (hemic) murmur. The temperature was 99.6 degrees by mouth. The hands were thin, and there was a slight, non-tender swelling and partial fixation of the finger joints bilaterally. The ankles were normal, and there was no edema. The knees were mildly enlarged by a boggy, sluggishly-inflammatory swelling, left greater than right. The elbows and shoulders were not swollen, but the joints were held in partial fixation from immobility. The para-spinal muscles were tender.

The tentative impressions were an atypical rheumatoid arthritis, with fixations of disuse; undernutrition; secondary anemia; and a systemic infection, such as undulant fever, to be ruled out.

A blood count included a hemoglobin of 9.5 gm.; RBC, 3,620,000; WBC, 5,000, with 83% neutrophils (28% band forms), 5% lymphocytes, 1% monocytes, and 11% eosinophiles. The sedimentation rate was 118 mm. in 60 minutes. The agglutinations for B. abortus and melitensis were negative.

It was decided to repeatedly transfuse the patient, to gradually mobilize the fixed joints, and to use analgesics and soporifics as needed. The first transfusion was given without incident. When the patient was seen at the end of a week, the temperature was normal, the anorexia was less, the color was better, the attitude more hopeful. She complained of intercostal neuralgia. The joints were the same. She was hospitalized for the second transfusion (for convenience), and there was only a slight febrile reaction. Fluoroscopy showed normal lungs and a normal heart, though it was larger than noted by physical signs. X-rays of the knees were normal, a report which was confirmed by a consultant.

Two weeks later she was able to stand and walk and the joint movements were better. She

continued to have bouts of fever and sweats. A trial of sulfadiazine and of penicillin injections produced no results. The symptoms and signs were the same. A blood culture was negative after four weeks. A skin test for brucellosis was negative, and an opsonocytaphagic test was normal.

After another two weeks the rehabilitation had proceeded well. There was no specific change, however, and the fever continued to recur and subside. Sulfamerazine was used, and on one occasion it seemed as though a remission of the fever occurred as a result. In spite of the transfusion the blood count remained about the same (Hb. 8.7 gm; RBC 3,670,000; WBC 4,500; N. 81%, L. 17%, M. 1%, E. 1%).

QUESTIONS—

1. Does this represent any special type of arthritis?
2. Is there a relationship to age? To the endocrines? To infection? To a metabolic fault?
3. What is the cause of the depressed blood count?
4. What is the prognosis?
5. Is there any treatment of notable value? Physiotherapy? Heat? Vaccine? Therapy for hematopoiesis? Gold?

M. D., Tucson

ANALYSIS AND ANSWERS—

This interesting case presents the following salient features: (1) Progressive polyarthritis in an adolescent female; (2) severe general constitutional reaction with a weight loss of 42 pounds over a period of some 10 months, low grade fever, marked asthenia, hypochromic anemia, and a greatly elevated erythrocyte sedimentation rate; (3) bouts of higher fever, at times associated with "chills." Certain pertinent clinical, roentgenographic and laboratory data are lacking in the summary, but sufficient information is included to allow a discussion of differential diagnosis and possibly to justify a presumptive diagnosis.

Although this adolescent patient has a stratospheric sedimentation rate (118 mm in 1 hour), bouts of fever and polyarthritis, *acute rheumatic fever can be ruled out*. The clinical course apparently was one of progressive arthritis with ultimate deformity of joints. Rheumatic fever may produce crippling lesions in the heart valves and myocardium, but the articular manifestations are acute or subacute and do not leave joint residues and do not result in actual joint deformity. Joint manifestations in acute rheumatic fever are usually transient and migratory, and the inflammatory reaction in any individual joint generally does not last longer than

a matter of days or weeks. The response to adequate salicylate therapy (120 to 150 grains per day) is not stated, but undoubtedly such a therapeutic trial would have given negative results. Apparently there is no clinical or electrocardiographic evidence of heart involvement.

The bouts of fever (sometimes accompanied by chill), the very rapid erythrocyte sedimentation rate, and the slight leucopenia should suggest *the possibility of a disseminated lupus erythematosus*. When articular manifestations are present in disseminated lupus they usually consist of aching and stiffness about joints or in muscles (without objective joint findings), but approximately 10 per cent of patients do show objective joint changes. Such findings when present most often consist of slight swelling, tenderness, and perhaps increased local heat in peripheral joints, often the small joints of the fingers; transient effusions into large joints such as the knees may occur. The articular manifestations are usually minimal and transient; permanent changes are most uncommon. Unfortunately the degree of actual articular crippling cannot be pictured from the case description. No other stigmata of disseminated lupus are mentioned; there is no mention of skin rash, albuminuria or cylinduria, facial edema, effusions into serous cavities, hypererglobulinemia, etc. But at times the articular symptoms constitute the early chief complaints and may precede the skin rash and other manifestations by months. We cannot, therefore, definitely rule out disseminated lupus erythematosus on the evidence presented. The subsequent clinical course would be helpful.

The episodes of chills and fever might suggest *the possibility of a subacute bacterial endocarditis*, but blood cultures failed to grow organisms, and a leucopenia not a leucocytosis was present. Certainly the crippling arthritis does not fit in with such a picture.

Periarthritis nodosa might be considered because of the chronic fever, musculoskeletal symptoms, severe constitutional reaction and obscure nature of the illness. Transient pain and swelling in joints may occur with this syndrome, but more often the musculoskeletal complaints are directed to the muscles and consist of aching, stiffness and local tenderness. Leucocytosis (with at times an eosinophilia) is characteristic rather than leucopenia. Features such as nephritic and intestinal symptoms, asthma, polyneuritis, abnormal cardiac findings, etc., evidently were not

present in the case under discussion. Muscle biopsy might have been a valuable diagnostic procedure.

Arthralgia and general aches and pains in muscles, joints and limbs may occur in *Brucellosis*. It is probable that this disease does not produce a true chronic peripheral arthritis, despite some opinions to the contrary. At any rate no immunological or cultural evidence for *Brucellosis* is given.

The progressive polyarthritis, leading to actual joint crippling, fits best into the clinical pattern of *rheumatoid arthritis*. Although the involved small joints of the hands and feet were not specifically identified in the summary, it will be assumed that they included the proximal interphalangeal, metacarpophalangeal, and metatarsophalangeal joints; rheumatoid arthritis has a predilection for these small joints. Tenderness of the paraspinal muscles and the "intercostal neuralgia" suggest involvement of the spinal joints. Unfortunately the physical findings on examination of the back did not receive elaboration, and apparently roentgenograms of the lower back were not made. Had there been roentgenographic evidence it will be assumed that they included the proximal interphalangeal, metacarpophalangeal, and metatarsophalangeal joints; rheumatoid arthritis has a predilection for these small joints. Tenderness of the paraspinal muscles and the "intercostal neuralgia" suggest involvement of the spinal joints. Unfortunately the physical findings on examination of the back did not receive elaboration, and apparently roentgenograms of the lower back were not made. Had there been roentgenographic evidence of bilateral sacro-ileitis, the diagnosis of rheumatoid arthritis could be strongly supported. Pronounced constitutional symptoms and hypochromic anemia are common in rheumatoid arthritis when the disease is severe. Neither the total nor the differential leucocyte count is characteristic; a moderate leucocytosis, a normal count, or a mild leucopenia may be found.

ANSWERS TO QUESTIONS

(1) It is impossible to make a definite diagnosis on the basis of the data presented. Because the picture best fits the clinical pattern of *rheumatoid arthritis* we will, for purposes of discussion, make such a diagnosis provisionally.

(2) Rheumatoid arthritis may affect persons of any age. It more commonly begins between

the ages of 20 and 40, but it may commence in childhood, adolescence or even after the age of 60. In *juveniles* or *adolescents* the disease tends to be severe and deformities may appear earlier; often crippling and muscular wasting are greater. The term "Still's Disease" is sometimes applied to those cases of juvenile rheumatoid arthritis which also demonstrate splenomegalia, lymphadenopathy and anemia. The current concept is that Still's Disease is merely a form of rheumatoid arthritis which occurs in youth; the objective manifestations and the histologic findings in the joints are identical with those in adult rheumatoid arthritis.

The cause of rheumatoid arthritis is not known. All currently considered etiologic theories—infectious, endocrine, circulatory, metabolic, psychogenic—lack proof. There is no evidence that an endocrine imbalance plays any role in the production of the disease. No definite metabolic fault has been identified. Recent investigators (Block and Murrill) found no deviations from normal in total sulfur, total nitrogen and amino acid contents, or total serum protein. The total lipid, total cholesterol and phospholipid contents of the plasma are also normal (Block, Buchanan and Freyberg). Recently Ropes, Rossemel and Bauer found a slight but definite negative calcium balance in patients with rheumatoid arthritis; the degree varied with the amount of calcification noted roentgenographically, and the negative balance probably was the result of the disease process rather than a causative factor. The local inflammatory reactions in the joints, the general constitutional reaction, and the elevated erythrocyte sedimentation rate suggest, of course, an infectious process. But repeated cultivations of the blood, joint fluid, synovia and subcutaneous nodules, have failed to prove that the disease is an infectious process. It is true that about 50 per cent of patients with rheumatoid arthritis have agglutination titers of 1 to 160 or higher for hemolytic streptococci, but in the strict sense this means only that the patient has been infected with streptococci sometime along the line and not that the arthritis is actually due to these organisms. In short, although many clinical features and some immunological findings suggest that infection may play a role in the pathogenesis of rheumatoid arthritis, positive evidence is lacking. It is more probable that infections of various types merely serve as trigger

mechanisms to set off an already present latent disease, or that they precipitate exacerbations of an already existing process.

(3) The cause of the *anemia* and of the *leucopenia* remains uncertain. It is now well understood that rheumatoid arthritis is a general systemic disease, characterized pathologically by widespread changes in various tissues and organs including the heart, kidneys, peripheral nerves, skeletal muscles, etc. It is not a disease solely of the musculoskeletal system; the joints merely demonstrate the predominant clinical manifestations. Some investigators have suggested that the leucopenia and anemia are due to depression of bone marrow, this being one of the manifestations of a general systemic disease. Steinberg, however, was unable to demonstrate bone marrow depression in rheumatoid arthritis; actually hyperplastic bone marrow with marked erythropoiesis and myelopoiesis was found by sternal biopsy.

(4) It is difficult to give the *prognosis* in any case. The process is capable of terminating at any point, either permanently or temporarily. In general, the outlook for severe juvenile rheumatoid arthritis is *unfavorable*. Severe crippling and a steady downhill course may result despite the best present day management.

(5) There is, of course, *no known cure* for rheumatoid arthritis, but much may be done to benefit the patient's general health, and not infrequently an arrest of the disease will reward therapeutic effort. If the particular patient under discussion has rheumatoid arthritis, man-

agement should include adequate rest, high vitamin high caloric diet with vitamin supplements, multiple blood transfusions, salicylates for the relief of pain, adequate joint splinting, and proper physiotherapeutic measures. The trend is definitely against vaccines of various types in the treatment of this disease. *Gold salt therapy* certainly would be justified, although in the presence of such severe constitutional reaction chrysotherapy should be given cautiously.



The 1,200th baby whose birth expenses were covered by the hospital-sponsored Arizona Blue Cross Plan for the prepayment of hospital care expenses, was born to Mrs. Charles K. Prettyman in Good Samaritan Hospital in Phoenix on Lincoln's Birthday. A sturdy, seven-pound boy, he was named Leigh Robert. Mr. Prettyman is business secretary of the Phoenix Y. M. C. A.

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1. Editorial: *The Problem of Amebiasis*, J.A.M.A. 134:1095 (July 26) 1947.
2. Wilbur, D. L., and Camp, J. D.: *Amebic Disease of the Cecum: Clinical and Radiological Aspects*, *Gastroenterology* 7:535 (Nov.) 1946.
3. Morton, T. C. St. C.: *Diodoquin for Chronic Amoebic Dysentery in Service Personnel Invalidated from India*, *Brit. M.J.* 1:831 (June 16) 1945.

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PROGRAM

Fifty-Seventh Annual Meeting

ARIZONA MEDICAL ASSOCIATION

PHOENIX, ARIZONA

MAY 19-21, 1948



Official Call

It is a pleasure to announce the Fifty-Seventh Annual Meeting of the Arizona Medical Association and the Woman's Auxiliary for May 19-21 at Phoenix. Guest and local orators will honor the Association with their presentations at the Scientific Sessions.

Preston T. Brown

President
Arizona Medical Association

HOTEL HEADQUARTERS - Westward Ho Rooms and Entertainment

SCHEDULE OF BUSINESS AND ENTERTAINMENT

MEETING PLACES—all events connected with Business and Scientific sessions—

Shrine Auditorium

REGISTRATION.....May 19-21 each day
9:00 A. M. throughout day

Stage of "Hall of Exhibits"—Shrine

COUNCIL SESSIONS—Conference Room, Shrine

1st Meeting, May 19 at 10:00 A. M.

2nd Meeting, May 21 at 9:00 A. M.

HOUSE SESSIONS.....Lecture Room, Shrine

1st Meeting, May 19 at 2:00 P. M.

2nd Meeting, May 21 at 10:00 A. M.

Additional sessions of Council and House subject to call.

ENTERTAINMENT

PRESIDENT'S DINNER - DANCE

May 20 at 7:30 P. M.

DINNER—Patio, Westward Ho—7:30 P. M.

DANCE —Fiesta Room, Westward Ho—
9 to Midnight

Guests: Fifty Year Club, Guest Speakers,
President Arizona Medical Assn.,
President Woman's Auxiliary to the
AMA,

President Arizona Auxiliary

GOLF: May 22-23 E. Payne Palmer, Jr., Chair-
man, Robt. E. Hastings, Tucson

OFFICERS & COUNCIL

Preston T. Brown.....President
Phoenix

Harold W. Kohl.....President-Elect
Tucson

Robert E. Hastings.....Vice-President
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D. F. Harbridge.....Medical Defense
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Phoenix

Arthur C. Carlson.....Northern District
Cottonwood

Hal W. Rice.....Southern District
Bisbee

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George O. Bassett.....Prescott

Dan L. Mahoney.....Tucson

W. Paul Holbrook.....Tucson

(Dr. Holbrook is serving unexpired term
for Dr. Chas. P. Austin of Morenci.)

COMMITTEES ANNUAL MEETING

Scientific Assembly: Harold W. Kohl, Tucson, Chairman; O. W. Thoeny, Phoenix; Harry T. Southworth, Prescott; Robert E. Hastings, Tucson.

Registration: Frank J. Milloy

House of Delegates Special Committees:
To be announced.

HOUSE OF DELEGATES

APACHE:

A. H. Dysterheft (McNary)
To be named (1)

COCHISE:

To be named (2)

COCONINO:

To be named (2)

GILA:

To be named (2)

GRAHAM:

D. E. Nelson (Safford)
J. N. Stratton (Safford)

GREENLEE:

C. H. Laugharn (Clifton)
S. C. Lovre (Morenci)

MARICOPA:

Louis B. Baldwin
Joseph Bank
Thomas H. Bate
Paul H. Case
William Cleveland
Daniel J. Condon
Carlos C. Craig
Palmer Dysart
Ben Pat Frissell
Ronald S. Haines
Carl A. Holmes
Louis G. Jekel
James Lytton-Smith
(all of Phoenix)

MOHAVE:

Walter Brazie (Kingman)
Broda O. Barnes (Kingman)

NAVAJO:

C. H. Peterson (Winslow)
M. G. Wright (Winslow)

PIMA:

H. D. Cogswell
J. Donald Francis
Ed J. Gotthelf
E. M. Hayden
Wm. Roy Hewitt
Donald F. Hill
Harry E. Thompson
Hugh C. Thompson
(all of Tucson)

PINAL:

C. R. Swackhamer (Superior)
O. E. Utzinger (Ray)

SANTA CRUZ:

E. C. Houle (Nogales)
Z. B. Noon (Nogales)

YAVAPAI:

Ernest A. Born (Prescott)
C. E. Yount, Jr. (Prescott)

YUMA:

A. I. Podolsky (Yuma)
Philip G. Corliss (Somerton)

Guest Orators

J. DEWEY BISGARD.....Omaha, Nebraska
Professor of Surgery, University of Nebraska
Medical School.

JEROME W. CONN.....Ann Arbor, Michigan
Associate Professor of Medicine, University of
Michigan College of Medicine.

IRVIN E. HENDRYSON.....Denver, Colorado
Department of Orthopedics, University of Colo-
rado School of Medicine.

(Auspices, National Foundation for
Infantile Paralysis)

Honored Guests

A "Fifty Year Club" is being formed this year for the first time. This Club consists of those members of the Association who have been in practice for 50 years or more. Members who will be so honored this year—and who will comprise the charter membership of the Club—are:

Francis W. Allen.....	Tucson.....	1898
Lewis A. W. Burtch.....	Phoenix.....	1897
Timothy T. Clohessy.....	Phoenix.....	1894
Guy H. Fitzgerald.....	Tucson.....	1898
Delamere F. Harbridge.....	Phoenix.....	1898
Robert N. Looney.....	Prescott.....	1898
William R. Lyon.....	Tucson.....	1895
E. Payne Palmer.....	Phoenix.....	1898
Harry A. Reese.....	Yuma.....	1896
Alexander M. Tuthill.....	Phoenix.....	1895
Clarence E. Yount.....	Prescott.....	1896

Honored Posthumously (deceased during past year)

James E. Drane.....	Phoenix
William Jackson.....	Coolidge

Members of the Fifty Year Club have been extended active membership, with all rights and privileges of voting and holding office, without payment of dues.

They will be honored guests at the President's Dinner-Dance.

SCIENTIFIC SESSIONS

Wednesday Evening, May 19.....Shrine
7:30 P. M.

Thursday Morning, May 20.....Shrine
9:30 A. M.

Thursday Afternoon, May 20.....Shrine
2:00 P. M.

Friday Afternoon, May 21.....Shrine
2:00 P. M.

Friday Evening, May 21.....Shrine
7:30 P. M.

EVENING SCIENTIFIC SESSION

7:30 P. M., Wednesday Evening, May 19, Shrine
Preston T. Brown, Presiding

1. "Agenesis of the Right Lungs in Identical Twins—a Case Report"
Florence B. Yount, M. D., Prescott
2. "The Spontaneous Hypoglycemias—Differential Diagnosis and Management"
Jerome W. Conn, M. D., Ann Arbor, Mich.
3. "Riedel's Struma"
E. Payne Palmer, M. D., Phoenix
4. "The Cancer-Ulcer Problem of the Stomach"
J. Dewey Bisgard, M. D., Omaha, Nebr.

Program

Thursday Morning, May 20 GENERAL SESSION

9:30 A. M.—

Call to Order

Preston T. Brown, M. D., President

Invocation

Rabbi A. L. Krohn

Welcome

H. D. Ketcherside, M. D., President,
Maricopa County Medical Society

Response

Philip G. Corliss, Yuma County Medical
Society

Induction of President

Preston T. Brown, M. D., officiating

Presidential Address

Harold W. Kohl, M. D., Tucson

Memorial Service

Hal W. Rice, M. D., Historian, Bisbee

10:15 A. M. SCIENTIFIC SESSION

1. "The Use of Radium in the Nasopharynx—
a Preliminary Report"
John S. Mikell, M. D., Tucson
2. "Surgical Treatment of Varicose Veins"
Jesse B. Littlefield, M. D., Tucson
3. "Cardiac Injuries"
Dermont W. Melick, M. D., Phoenix
George G. McKhann, M. D., Phoenix
4. "A New Medium for Hysterosalpingography"
M. James Whitelaw, M. D., Phoenix

Thursday Afternoon, May 20

2:00 P. M.

1. "Postoperative Spinal Punctures and Re-
actions"
Zenas B. Noon, M. D., Nogales
2. "Early Diagnosis of Poliomyelitis"
Irvin E. Hendryson, M. D., Denver, Colo.
3. "Treatment of Menstrual Disorders in Gen-
eral Practice"
Broda O. Barnes, M. D., Kingman
4. "Some Indications for Pulmonary Resection"
J. Dewey Bisgard, M. D., Omaha, Nebraska
Question and Answer Period

Thursday Evening, May 20

President's Dinner Dance — Westward Ho
7:30 P. M.

Friday Morning, May 21

Sessions of the Council and the House of
Delegates—Shrine

9:00 A. M. Council

10:00 A. M. House of Delegates

Friday Afternoon, May 21

2:00 P. M.—Shrine

1. "Differential Diagnosis in Radiating Pain
into the Upper Extremity"
William A. Bishop, M. D., Phoenix
2. "Psychiatric Aspects of the Low Back Prob-
lem—the Narco-Therapeutic Approach"
Otto L. Bendheim, M. D., Phoenix
3. "Acute Obstructive Laryngotracheo—Bron-
chitis"
A. Harry Neffson, Tucson
4. "Management of Diabetic Coma"
Jerome W. Conn, M. D., Ann Arbor, Mich.
Question and Answer Period

Friday Evening, May 21

7:30 P. M.—Shrine

1. "Electro-encephalography: Its Place in
Neuro-Diagnosis"
John Raymond Green, M. D., Phoenix
2. "Surgical Management of Lesions of the
Gallbladder and Common Duct"
J. Dewey Bisgard, M. D., Omaha, Nebr.
3. "Care of the Dying"
Robert S. Flinn, M. D., Phoenix
4. "Obesity: Physiology and Management"
Jerome W. Conn, M. D., Ann Arbor, Mich.

Question and Answer Period

PRESIDENTS AND SECRETARIES OF THE ASSOCIATION SINCE ITS ORGANIZATION

Year Elected	President	Secretary
1892	J. A. Miller, Phoenix	J. W. Green, Tucson
1893	H. A. Hughes, Phoenix	L. D. Dameron, Phoenix
1894	Ancil Martin, Phoenix	L. D. Dameron
1895	P. O. Cotter, Yuma	L. D. Dameron
1896	D. M. Furman, Phoenix	L. D. Dameron
1897	Chas. H. Jones, Tempe	O. E. Plath, Phoenix
1898	W. V. Whitmore, Tucson	O. E. Plath
1899	Win Wylie, Phoenix	Chas. H. Jones, Tempe
1900	T. B. Davis, Prescott	Chas. H. Jones
1901	H. W. Fenner, Tucson	Chas. H. Jones
1902	Wm. Duffield, Phoenix	Chas. H. Jones
1903	L. D. Dameron, Phoenix	John W. Foss, Phoenix
1904	W. H. Ward, Phoenix	John W. Foss
1905	J. W. Coleman, Jerome	John W. Foss
1906	O. E. Plath, Phoenix	John W. Foss
1907	A. R. Hickman, Douglas	John W. Foss
1908	A. W. Olcott, Tucson	John W. Flinn, Prescott
1909	R. N. Looney, Prescott	John W. Flinn
1910	John W. Foss, Phoenix	John W. Flinn
1911	Francis E. Shine, Bisbee	John W. Flinn
1912	John E. Bacon, Miami	W. W. Watkins, Phoenix
1913	Ira E. Huffman, Tucson	C. E. Yount, Prescott
1914	John W. Flinn, Prescott	C. E. Yount
1915	Roy E. Thomas, Phoenix	C. E. Yount
1916	Robt. Ferguson, Bisbee	C. E. Yount
1917	W. A. Holt, Globe	C. E. Yount
1918	W. Warner Watkins, Phoenix	C. E. Yount
1919	C. E. Yount, Prescott	F. Harbridge*, Phoenix
1920	A. M. Tuthill, Morenci	D. F. Harbridge
1921	A. L. Gustetter, Nogales	D. F. Harbridge
1922	H. T. Southworth, Prescott	D. F. Harbridge
1923	C. A. Thomas, Tucson	D. F. Harbridge
1924	R. D. Kennedy, Globe	D. F. Harbridge
1925	R. D. Kennedy**, Globe	D. F. Harbridge
1926	Geo. A. Bridge, Bisbee	D. F. Harbridge
1927	Chas. A. Vivian, Phoenix	D. F. Harbridge
1928	A. C. Carlson, Jerome	D. F. Harbridge
1929	Samuel H. Watson, Tucson	D. F. Harbridge
1930	Joseph M. Greer, Phoenix	D. F. Harbridge
1931	Harry A. Reese, Yuma	D. F. Harbridge
1932	Clarence Gunter, Globe	D. F. Harbridge
1933	N. C. Bledsoe, Tucson	D. F. Harbridge
1934	Fred G. Holmes***, Phoenix	D. F. Harbridge
	Meade Clyne, Tucson	D. F. Harbridge
1935	C. R. K. Swetnam, Prescott	D. F. Harbridge
1936	Jesse D. Hamer, Phoenix	D. F. Harbridge
1937	C. R. Swackhamer, Superior	D. F. Harbridge
1938	Hal W. Rice, Bisbee	D. F. Harbridge
1939	Chas. S. Smith, Nogales	L. K. Kober, Phoenix
1940	D. F. Harbridge, Phoenix	W. W. Watkins, Phoenix
1941	W. Paul Holbrook, Tucson	W. W. Watkins
1942	E. Payne Palmer, Sr., Phoenix	W. W. Watkins and
1943	O. E. Utzinger, Ray	Frank J. Milloy, Phoenix
1944	Dan L. Mahoney, Tucson	Frank J. Milloy
1945	Charles P. Austin, Morenci	Frank J. Milloy
1946	George O. Bassett, Prescott	Frank J. Milloy
1947	Preston T. Brown, Phoenix	Frank J. Milloy

*Dr. Harbridge served 22 years as secretary due to method of election and time of taking office changing and overlapping.

**In 1925 the By-Laws were changed to provide for the election of a President-Elect, to be elected one year and take office the following year. For this reason Dr. Kennedy served two years as president.

***Dr. Holmes, the President-Elect, was compelled to resign before he became President on account of illness, and the Council advanced the first Vice-President, Dr. Meade Clyne, to that office, and he became President at the 1934 meeting.

Terms extend from one annual meeting to the next rather than for calendar year.

Hall of Exhibits

The following firms are supporting the Annual Meeting—support them, in turn, by taking sufficient time out to visit their instructive displays.

Abbott Laboratories	North Chicago
American Cancer Society	Arizona Division
Ames Company, Inc.,	Elkhart, Indiana
Arizona Society for Crippled Children	Phoenix
Audio Development Co.	Minneapolis, Tucson
Aunger's Arizona Brace Shop	Phoenix
Ayerst, McKenna & Harrison	New York City
Don Baxter, Inc.	Glendale, Calif.
Blair Surgical Supply Co.	Phoenix, Tucson
Blue Shield - Blue Cross	Phoenix
Borden's Maricopa Division	Phoenix
Borden's Prescription Products	New York City
Bower Co. Office Supplies	Phoenix
Burroughs Wellcome	Tuckahoe, N. Y.
Cameron Surgical Specialty Co.	Chicago
Carnation Co.	Los Angeles
Ciba Pharmaceutical Products	Summit, New Jersey
Coca Cola	Phoenix, Atlanta, Ga.
Cutter Laboratories	Berkeley, Calif.
Doho Chemical Corporation	New York City
C. B. Fleet Co.	Lynchburg, Va.
General Electric X-ray Corp.	Phoenix
Gerber's Products	Fremont, Michigan
Harrower Laboratory, Inc.	Glendale, Calif.
Holland-Rantos	New York City
Infantile Paralysis Foundation	Arizona Chapter
Kelton Audio Equipment Co.	Phoenix, Tucson
Lanteen Laboratories	Chicago
Lederle Laboratories, Inc.	New York City
Benton M. Lee Investment Co.	Phoenix
Eli Lilly & Co.	Indianapolis
J. B. Lippincott	Philadelphia
M & R Dietetic Laboratories	Columbus
Mead Johnson	Evansville
W. S. Merrell Co.	Cincinnati
Mountain States Tel. & Tel.	Phoenix
National Dairy Products, Inc.	New York City
Ortho Pharmaceutical Co.	Raritan, New Jersey
PBSW Supply & Equipment Co.	Phoenix
Parke, Davis	Detroit
Pet Milk Corporation	St. Louis
Philip Morris	New York City
Phoenix Limb Shop	Phoenix
Sandoz Chemical Works, Inc.	New York City
G. D. Searle & Co.	Chicago
Smith-Dorsey Co.	Lincoln, Nebraska
Sonotone	Phoenix
Southwestern Surgical Supply Co.	Phoenix
Standard Insurance Co.	Phoenix
Standard Surgical Supply Co.	Phoenix
Stayner Corporation	Berkeley, Calif.
Westinghouse Electric Corp.	San Francisco
Winthrop-Stearns, Inc.	New York City

WOMAN'S AUXILIARY

OFFICERS

President—Mrs. Harry T. Southworth.....Prescott
 President-Elect—Mrs. Thomas H. Bate.....Phoenix
 First Vice-Pres.—Mrs. Melvin Lloyd Kent.....Mesa
 Sec. Vice-Pres.—Mrs. Hugh C. Thompson.....Tucson
 Recording Sec'y—Mrs. N. K. Thomas.....Tucson
 Cor. Sec'y—Mrs. Alvin Kirmse.....Whipple
 Treasurer—Mrs. Karl S. Harris.....Phoenix
 Directors—Mrs. Paul H. Case, Phoenix;
 Mrs. Jas. H. Allen, Prescott
 Mrs. Hervey S. Faris, Tucson

GREETINGS

By this time, you have all received notices of the Annual Meeting of the Woman's Auxiliary to the Arizona Medical Association to be held in Phoenix, May 19-21. A most cordial invitation is extended to every doctor's wife to attend the general session of the Auxiliary and the social events which have been planned. The Maricopa County Auxiliary, as hostess, has arranged a delightful social program. The Annual Meeting will be highlighted by the presence of the President of the Woman's Auxiliary to the American Medical Association, Mrs. Eustace A. Allen of Atlanta, Georgia. It is with pleasurable anticipation that we look forward to seeing you at the convention.

Mrs. Harry T. Southworth,
President

CONVENTION COMMITTEES

Maricopa County Medical Auxiliary, Hostess
 General Chairman—Mrs. Carlos C. Craig, Phoenix
Registration and Credentials
 Mrs. John W. Pennington, Chairman
 Mrs. Marriner W. Merrill
 Mrs. Preston T. Brown
 Mrs. Karl S. Harris
Reservations
 Mrs. L. L. Tuveson
Transportation
 Mrs. Reed Shupe, Chairman
 Mrs. R. W. Hussong
 Mrs. L. D. Beck
 Mrs. Angus J. DePinto
Finance
 Mrs. Archie E. Cruthirds
Hostess Committee
 Mrs. Paul H. Case, Chairman
 Mrs. J. Madison Greer
 Mrs. James R. Moore
 Mrs. Harry J. French
 Mrs. Wm. F. Schoffman
 Mrs. Geo. S. Enfield
 Mrs. Louis G. Jekel
 Mrs. Jesse D. Hamer
 Mrs. L. Clark McVay
Publicity
 Mrs. Matthew Cohen, Chairman
 Mrs. Benjamin Herzberg
Luncheon Committee for May 20
 Mrs. O. W. Thoeny, Chairman
 Mrs. R. Lee Foster
 Mrs. Harry J. French

Luncheon, May 21

Mrs. Thomas W. Woodman, Chairman
 Mrs. E. Payne Palmer, Jr.
 Mrs. Robert H. Cummings
 Mrs. Charles W. Sult, Jr.
 Mrs. Clarence B. Warrenburg

Cocktail Party

Mrs. Dudley T. Fournier, Chairman
 Mrs. Angus J. DePinto
 Mrs. Zeph B. Campbell
 Mrs. John Cogland

AUXILIARY PROGRAM

Headquarters for all Sessions
 Hotel Westward Ho

Registration.....Lobby of Hotel, May 19
 General Sessions.....Saratoga Room
 May 20, 10:00 A. M.
 May 21, 10:00 A. M.
 Executive Board Meeting.....May 19, 7:00 P. M.
 Dinner Meeting—Aluminum Room

May 20

General Session.....10:00 A. M.
 Mrs. Harry T. Southworth, President, presiding
 Invocation.....Reverend Frederick A. Barnhill
 Address of Welcome.....Mrs. Jos. Bank, Phoenix
 Response.....Mrs. Harold W. Kohl, Tucson
 Speaker.....Dr. Irvin E. Hendryson
 Dept. of Orthopedics, University of Colorado
 School of Medicine
 "Poliomyelitis Today"

Business Session.....10:30 A. M.
 Roll Call
 Reading of Minutes
 Report of Meeting of Board of Directors
 Reports of State Officers and Committee
 Chairmen—
 President.....Mrs. H. T. Southworth
 First Vice-Pres.....Mrs. M. L. Kent
 Second Vice-Pres.....Mrs. Hugh C. Thompson
 Recording Sec'y.....Mrs. N. K. Thomas
 Corresponding Sec'y.....Mrs. Alvin Kirmse
 Treasurer.....Mrs. Karl S. Harris

Committee Chairmen

Health.....Mrs. Ira E. Harris, Miami
 Legislative.....Mrs. W. F. Schoffman, Phoenix
 Nat'l Board.....Mrs. J. D. Hamer, Phoenix
 Public Relations.....Mrs. W. R. Hewitt, Tucson
 Publicity.....Mrs. L. G. Jekel, Phoenix
 Bulletin.....Mrs. C. C. Craig, Phoenix
 Hygeia.....Mrs. H. D. Cogswell, Tucson
 Historian.....Mrs. G. B. Irvine, Tempe
 Post-War Plan'g.....Mrs. H. A. Hough, Prescott

Report of Special Committee Revisions—
 Mrs. T. H. Bate

Report of Convention Committee—
 Mrs. C. C. Craig

Report of Registration and Credentials Committee—
 Mrs. J. W. Pennington

Report of Nominating Committee—
 Mrs. Hervey S. Faris

Election of Officers

Friday Morning, May 21

Second Session.....10:00 A. M.
 Greetings.....Mrs. E. Henry Running
 In Memoriam.....Mrs. James R. Moore

Roll Call.....	Mrs. N. K. Thomas
Minutes.....	Mrs. N. K. Thomas
Reports of County Presidents—	
Gila.....	Mrs. Clarence Gunter
Maricopa.....	Mrs. Joseph Bank
Pima.....	Mrs. Charles E. Starns
Yavapai.....	Mrs. E. B. Jolley
Report of Committee on Resolutions	
Miscellaneous Business	
Installation of Officers	
Presentation of President, 1948-1949	
Adjournment of Annual Session	
Parliamentarian—Mrs. Jesse D. Hamer	
Post-Convention Board Meeting	

ENTERTAINMENT

Thursday, May 20—Luncheon.....	12:30 Noon
Westward Ho	
Honoring Mrs. Eustace A. Allen, President, Woman's Auxiliary to the American Medical Association	
Dinner-Dance—Thursday, May 20.....	7:30 P. M.
Under direction Arizona Medical Association	
Friday, May 21	
Luncheon—12:00 Noon—Silver Spur	
Cocktail Party.....	7:30 P. M.
Gardens, Dr. Dudley T. Fournier	
Home, 1619 Palmcroft Dr. S.W.	

ACTIVITIES FOR YEAR PAST

Board Meets with Council of State Association

Following the example set by the National Boards of the American Medical Association and its Auxiliary, a committee of Auxiliary to the Arizona State Medical Association met with a committee of the Arizona State Medical Association Sunday, March 7th, at the Westward Ho, to discuss matters of interest to both organizations. Topics under discussion were ways in which the organizations can help with the current health problems of the community and the annual meeting to be held in Phoenix in May.

Those attending were: Mrs. Harry Southworth, Prescott; Mrs. N. K. Thomas, Tucson; Mrs. Jesse Hamer, Mrs. T. H. Bate, Mrs. L. G. Jekel, Phoenix, and Dr. Preston T. Brown, Dr. Jesse Hamer, Dr. Frank J. Milloy, and Mr. Jackson, Executive Secretary, Phoenix.

COUNTY AUXILIARY REPORTS

Gila Auxiliary

The Gila County Auxiliary had a dinner meeting with the doctors in January, at which time officers were elected and plans were made to help the Gila County Hospital, our project of the year. Each member is to have a benefit bridge luncheon this spring. The money raised is to be used for bed lamps, which many of the rooms lack.

Camilla Gunter

Woman's Auxiliary to the Maricopa County Medical Society

The Woman's Auxiliary celebrated their twenty-fifth anniversary this year. We were proud to have Maricopa County represented by one of our members who became National President and also computed a chapter pertaining to Auxiliary in the A.M.A.'s book, "A History of A.M.A."

A number of our members attended the A.M.A. convention in Atlantic City celebrating its One Hundredth Anniversary.

In November we were hostesses to the women for the Southwestern Medical Convention. Complete coverage of the convention news and photographs was kept in the Maricopa County scrapbook.

Many members were instrumental in organizing the Phoenix Symphony Orchestra.

Welfare activities included assistance to Community Chest Drive, Red Cross, March of Dimes, Easter seal sale, T. B. seal sale, and gifts were donated at Christmas time to children in the State Mental Hospital.

Members of our group assisted on the many drives, some assuming the chairmanship. The programs presented at the Auxiliary meetings were arranged to make members aware of Civic and Community affairs. We heard authorities on child guidance and marriage counseling.

Various Red Cross classes were taught by one of our members.

The chairman of Hygeia Magazine worked diligently and obtained her quota.

At the April meeting Mrs. Joseph White will talk on "Women's Role in Furthering Peace Through the United Nations."

At present many plans are underway for the State Medical Convention to convene in Phoenix, Maricopa group to be hostesses.

Members will be working on the drive to raise funds for the new St. Joseph's Hospital.

Respectfully submitted,

Mona Cohen,
Publicity Chairman.

Pima Auxiliary

The Pima County Auxiliary outside activities have had as their purpose the promotion of health and welfare, in general, and among children, in particular. Our activities within and in preparation for our regular meetings have had as their objectives the increasing of attend-

ance, the arousing of keener interest and enthusiasm in the auxiliary's endeavors, the development of a genuine spirit of friendliness, and, by a form of indoctrination, the making of our membership sufficiently informed on subjects vital to the medical profession and health education in general that each one, whenever an opportunity occurs, can interpret to her associates casually, correctly, and impressively any issues related to these subjects.

Mrs. Harry T. Southworth of Prescott and Mrs. Thomas H. Bate of Phoenix, president and president-elect of the State Auxiliary, made their official visit in March. The meeting was held at the home of Mrs. Richard K. Hausmann. Mrs. Southworth spoke on the work of the state organization and plans for the convention in May. Mrs. Bate reported on the national meeting of presidents and presidents-elect which she attended last November in Chicago. She also described projects which Arizona auxiliaries will undertake during the coming year.

Bess Starnes

Yavapai Auxiliary

The Yavapai County Auxiliary has divided its activities this year between social and welfare interests. Our first fall meeting was a well attended luncheon at a downtown restaurant at which we welcomed several new members. As our group is relatively small it is usually possible to hold our meetings in the homes of the members, so our programs are a combination of social and business activity. Our December meeting, which came just a few days before Christmas, was held at the home of Mrs. J. H. Allen. Each member brought toys which were delivered to the local welfare organization for distribution to selected children for Christmas gifts.

Mrs. E. A. Born was hostess for the January meeting at which final plans were made for our annual rummage sale. The sale, held in the downtown district for two days, netted us over \$200. From this our contributions to several local and national service funds, as well as our donation to the cancer fund will be made. We have also made a donation of children's clothing to the P. T. A. of one of our local elementary schools.

Another of our activities has been the interpretation of prepayment medical services to the community. At a recent meeting of the Monday

Club of Prescott, Dr. E. A. Born represented us as the speaker of the day to tell of the Blue Shield plan. As a result of this talk we have had requests for speakers from other groups and are planning to continue this work.

Evelyn Kirmse, Secretary

SCIENTIFIC CANCER INSTITUTE

Presented by

ARIZONA DIVISION, THE AMERICAN
CANCER SOCIETY
in conjunction with
ARIZONA STATE DEPARTMENT
OF HEALTH

May 16, 17, 18, 19, 1948

Committee

Chairman—

E. Payne Palmer, Sr., M. D.—Medical Advisor of The American Cancer Society, Arizona Division.

Co-Chairmen—

J. P. Ward, M. D.—Medical Director of Arizona State Department of Health.

Mrs. Thomas A. Hartgraves — State Commander, Field Army, Arizona Division of The American Cancer Society.

Mrs. Robert E. May—Member of the State Board of Trustees, Arizona Division of The American Cancer Society.

Mrs. Melba Cox Dunning—Executive Secretary, Arizona Division of The American Cancer Society.

Mrs. Hale Pragoff—Medical Social Worker, Arizona State Department of Health.

Miss Jefferson Brown, Director of Public Health Nurses, Arizona State Department of Health.

G. R. Clark, M. D.—Director of Tuberculosis and Cancer Control, Arizona State Department of Health.

John Foster, M. D.—Member of the Cancer Committee of the Maricopa County Medical Society.

Arthur J. Present, M. D.—Executive Officer of the Detection Center or Tumor Clinic at the Tucson Medical Center.

Registration—Hotel Westward Ho
Institute Headquarters—Hotel Westward Ho
Mrs. Mildred May — Chairman of Courtesies
Mrs. T. A. Hartgraves—Chairman of Reception

Serving Committee
Mrs. E. Payne Palmer, Sr. Mrs. C. R. Swackhamer
Mrs. Irving A. Jennings Mrs. H. P. Southworth
Mrs. R. E. Solosth

Honorary Guests

Mrs. Grace Seaman	Mrs. T. C. Harper
Mrs. Michael Herbolich	Mrs. Irma Courteol
Mrs. Freeland L. Byars	Mrs. Sophie Smoot
Mrs. Mildred P. Fulkerson	Mrs. G. L. Bissinger
Miss Bertha Case	Mrs. W. W. Mitchell
Mrs. Josephine Borree	Mrs. George B. Irvine
Mrs. Hal J. McCorrell	Mrs. Preston T. Brown
Mrs. Clara Jane Crozier	

SUNDAY, MAY 16, 1948

7:00 - 9:00 P. M. Registration and Get Together
Hotel Westward Ho—Palm Room

INSTRUCTIONS

QUESTION BOX - Melba Cox Dunning

Anyone attending the Institute may present questions which will be answered at the Panel Discussion Wednesday, May 19 from 1:30 - 2:30

P. M. All questions must be written and deposited in the question box at the end of each session. The groups will be divided for specific training after the Scientific Session May 18 at 12:00 o'clock Noon. Nurses and Social Workers will remain in the Bishop Atwood House for Luncheon. Physicians and Field Army Workers will attend the Luncheon at the Hotel Westward Ho.

MONDAY, MAY 17, 1948

Auditorium — St. Monica's Hospital

South Seventh Avenue

Presiding—Mrs. T. A. Hartgraves

9:30 - 9:40 A. M. Invocation—

Father Emmett McLaughlin

9:40 - 9:45 A. M. Greeting—

Mrs. T. A. Hartgraves

9:45 - 10:00 A. M. National and State Relationship

Mrs. H. G. Bogert

Morning Scientific Session

Presiding—E. Payne Palmer, Sr., M. D.

10:00 - 10:30 A. M. Cancer Statistics—

E. Cuyler Hammond, M. D.

10:30 - 11:00 A. M. General Aspects of Cancer—

Charles S. Cameron, M. D.

11:00 - 11:30 A. M. Normal and Malignant Cell

Division—O. O. Williams, M. D.

11:30 - 12:00 Noon Function of Detection Center

and Cancer Clinic—John Foster, M. D.

12:00 - 1:30 P. M. Tour of Hospital

1:30 - 2:30 P. M. Luncheon—Cafeteria,
St. Monica's Hospital

Afternoon Scientific Session

Auditorium — St. Monica's Hospital

Presiding—E. Payne Palmer, Sr., M. D.

2:30 - 3:00 P. M. Cancer in Dentistry—

Charles E. Borrah, M. D.

3:00 - 3:30 P. M. Cancer in Women

Margaret Williams, M. D.

3:30 - 4:00 P. M. Cancer of the Breast—

E. Payne Palmer, M. D.

4:00 - 4:30 P. M. Cancer in Children—

Florence Yount, M. D.

4:30 - 5:00 P. M. Cancer of the Genito-Urinary

Tract—Robert Cummings, M. D.

EVENING FREE

TUESDAY, MAY 18, 1948

Bishop Atwood House

First Avenue and Roosevelt

Morning Scientific Session

Presiding—Royal Rudolph, M. D.

9:30 - 10:00 A. M. Cancer of the Skin—

Kenneth C. Baker, M. D.

10:00 - 10:30 A. M. Cancer of the Lung—

John Stacey, M. D.

10:30 - 11:00 A. M. Cancer of the Gastro-Intestinal

Tract—Royal Rudolph, M. D.

11:00 - 11:30 A. M. Tumors of the Brain—

John Eisenbeiss, M. D.

11:30 - 12:00 Noon Irradiation Therapy—

Maurice Richter, M. D.

LUNCHEON

12:00 - 2:00 P. M.

NOTICE: Luncheon for Physicians and Field Army in Continental Room—Hotel Westward Ho.

Presiding—E. P. Palmer, Sr., M. D.

Speakers: Charles S. Cameron, M. D., and E. Cuyler Hammond, Sc. D.

NOTICE: Luncheon for Nurses and Social Workers—Bishop Atwood House.

Afternoon Scientific Session

NOTICE: Nurses and Social Workers

Presiding—J. P. Ward, M. D.

2:00 - 2:30 P. M. Application of Cancer Educa-

tion in the Program of the Social Worker—Mrs. Hale Pragoff

2:30 - 3:00 P. M. Integration of Cancer Program in the General Health Program—

J. P. Ward, M. D.

3:00 - 5:00 P. M. Nursing Aspects of the Cancer Patient—Miss Marjorie Schlotterbeck, R. N.

3:00 - 5:00 P. M.

NOTICE: Field Army Workers and Interested Laymen

Special Organizational Session

Hotel Westward Ho

Presiding—Mrs. Thomas A. Hartgraves

Speaker—Mrs. Emilie G. Bogert

Hotel Westward Ho

WEDNESDAY, MAY 19, 1948

El Zariba Shrine Auditorium

Fifteenth Avenue and Washington Street

Morning Session

9:30 - 11:15 A. M. Tour of Medical Display through the courtesy of the Arizona State Medical Association.

Luncheon

TIME FREE

Afternoon Session

Good Samaritan Hospital Nurses Home

1033 East McDowell Road

Nurses' Auditorium

Presiding: E. Payne Palmer, Sr., M. D.

1:30 - 2:30 Panel Discussion

Members of the Panel:

E. Payne Palmer, Sr., M. D.

E. Cuyler Hammond, Sc. D.

Mrs. Harold G. Bogert

Mrs. Hale Pragoff, B. S., M. A.

Miss Jefferson Brown, R. N.

2:30 - 3:30 Review of Films

3:30 - Delegates Report to Mrs. Robert E. May, Treasurer

PROGRAM

OF ARIZONA SECTION

AMERICAN COLLEGE OF CHEST

PHYSICIANS MEETING

10:00 A. M., May 19, 1948

PARLOR "B" - WESTWARD HO HOTEL

1. "Bronchography" (paper held over from 1947) — Dr. Howell Randolph, Phoenix, Arizona
2. "Exploratory Thoracotomy in Obscure Thoracic Disease" — Dr. John B. Grow, Chief of Surgical Service, Nat'l Jewish Hospital, Denver, Colorado
3. "The Use of the Laboratory in Controlling the Treatment of Tuberculosis" — Dr. C. Richard Smith, Director of the Laboratory, The Barlow Sanatorium Assn., Los Angeles, California
4. Luncheon Meeting at 12:15—Parlor "B" - Westward Ho Hotel
Discussion: Resection for Non-Tuberculous Pulmonary Disease
Dr. J. Dewey Bisgard, Omaha, Nebraska.

All physicians interested in these subjects are invited to attend these meetings. Members of the American College of Chest Physicians should make a special effort to be present on this day.



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ARIZONA MEDICINE

Journal of

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Editorials



HAROLD W. KOHL, M. D.
PRESIDENT 1948-1949

Dr. Harold W. Kohl of Tucson will become President of the Arizona Medical Association at the Annual Meeting this May 19-21. He is high-

ly qualified for this high post in the Association as he has served on the Council in several capacities over a period of several years. His service to the Association as Delegate to the American Medical Association just prior to World War II provided him with national aspects of organized medicine which are invaluable to a state president. As Speaker of the Arizona Association House of Delegates he has a knowledge of procedures that further qualify him for the presidency.

Dr. Kohl was born in Minneapolis, Minnesota and graduated from the University of that state with the degree of Doctor of Medicine in 1925. His internship was in Walter Reed Hospital at Washington, D. C., and Fitzsimmons General Hospital, Denver. He holds a license to practice his profession in Minnesota as well as in Arizona.

In 1926, Dr. Kohl entered the United States Medical Corps and remained with that service until 1931 when he resigned with the grade of Captain and located at Tucson where he was associated in practice for three years with Dr. Dan L. Mahoney. He then opened his own office and limited his practice to internal medicine. In 1942 he volunteered his services for World War II. He was with the Army of the United States, assigned first as Chief of Medical Service, MacDill Field Station Hospital, Tampa, Florida. After attending school for Air Force Medical Officers at Randolph Field, Texas, he was named Flight Surgeon. In 1943 he was assigned as Station Surgeon, Avon Park Army Air Field, Avon Park Florida. In 1945 he was assigned to command MacDill Field Station Hospital where he served in the grade of Colonel until his return to inactive service in February, 1946. He then resumed his private practice at Tucson.

In addition to the routine memberships with Pima County Medical Society, the Arizona State Medical Association, and Fellowship with the American Medical Association, he holds membership with the American College of Chest Physicians and with the American College of Physicians. He is certified in his specialty by the American Board of Internal Medicine.

Mrs. Kohl, formerly Ann Kathleen O'Flaherty of Denver, shares the doctor's interest in medical affairs by being especially active with the Woman's Auxiliary. Their son, Harold Willis

(Continued on Page 81)

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(Continued from Page 79)

Kohl Jr., is now 13 and plans to make medicine his career.

Dr. Kohl brings a keen enthusiasm for and wide knowledge of the various aspects of organized medicine into the presidency and joins the line of recent presidents who have been making history in the progress of medicine in all its ramifications for Arizona. The membership of the state association welcomes Dr. Kohl to this important position and anticipates a year of continued progress under his direction.

THE ARIZONA DIVISION OF THE AMERICAN CANCER SOCIETY

Mrs. Thomas A. Hartgraves, *State Commander*
Dr. E. Payne Palmer, Sr., *Medical Adviser*

The reason for creating the Cancer Society in the State of Arizona was to disseminate authentic information in the field of cancer control. Schools and Speakers' Bureaus were designed for nurses, both graduate and under graduate, teachers, college students, and high school students. The Speakers' Bureau, comprised of both professional and lay persons, serves all club groups. This program is still being carried on.

In developing the education program, above mentioned a great need was evidenced in that many people do not have the proper diagnosis and care, due to lack of funds. As soon as it was possible, a service program was established. This program provides free examination and partial care for individuals not eligible for county service, whose incomes do not exceed \$1800 per year, and have two or more dependents, or cases similar to this.

I. Education

- A. FREE literature is distributed upon request for nurses, teachers, college students, high school students, and all club organizations, or interested individuals.
- B. An Institute once each year for lay and professional groups.
- C. Six weeks' Summer Course in instruction in health education concentrating on the cancer program for teachers seeking re-certification and other students.
- D. Radio discs supplied upon request.
- E. Scientific and dramatic films based on the cancer problem are available for loan upon request without charge.
- F. We also provide gratis materials for art and manual arts classes developing contests for the Society.

II. Service

A. Dressings

We provide surgical dressings upon request for cancer patients who are unable to provide their own. The request must be accompanied with a description of the case from a physician whose name is on the Registry of the Arizona State Medical Association.

B. Examination

Persons desiring an examination for cancer may write to the State Headquarters and an appointment card will be sent to the individual for the doctor making this request, but the patient must be medically indigent according to the eligibility requirement as stated above in the second paragraph of this article.

C. Treatment and Hospitalization

After examination, should it be found that the patient needs treatment, the American Cancer Society, Arizona Division, can assume the financial responsibility of not more than \$150 of hospitalization or care.

III. Financial Set-Up

\$13,000 for service in the State of Arizona. Care can be given to approximately 100 cases annually.

- A. A \$150 loan can be arranged if the patient does not meet the requirements of the eligibility clause and there is an urgent need for funds.
- B. We must have clearance from County Health Department or other similar agencies where financial histories are made.

IV. The Role of the Doctor in Relationship to the Agency.

A. Technique of referral

A physician who has a patient eligible for assistance from the Society should write or phone the State Commander for authorization of payment by the Society.

B. Treatment and care by the agency

Society assumes no responsibility for treatment, but provides financial assistance and education.

HYPERPLASTIC LYMPHOID TISSUE OF THE NASOPHARYNX AND ITS TREAT- MENT BY IRRADIATION.

Although not a new procedure, it is chiefly through the work of Dr. S. J. Crowe and Associates of Johns Hopkins Hospital that the use of radium in the treatment of hyperplastic lymphoid tissue of the nasopharynx has been

(Continued on Page 83)

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(Continued from Page 81)

popularized. Since some physicians have been disappointed with the results obtained in such treatment it is well to review briefly, some of the points in the rationale and indications for such treatment, as at least some of the negative results can be accounted for by a failure to heed these points in a selection of patients.

In the use of radium from a single relatively small source as is done in these cases, it must be remembered that the effect is localized to a small area. The dosage from a source of radium falls off rapidly in accordance with the inverse square law in which the intensity of radiation varies inversely with the square of the distance. Furthermore in this procedure the applicator is constructed so that a large proportion of the irradiation used is beta irradiation which is of low penetrating power. Since the applicator also places the radium at the pharyngeal opening of the Eustachian tube, it is logical that the cases which do best are those in which the hypertrophied lymphoid tissue is localized about this orifice.

Many cases, however, have involvement of lymphoid tissues elsewhere, as in the tonsils, the adenoids and the scattered lymphoid folli-

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cles of the pharynx. There may be associated infection in any or all of these tissues. The lymphoid tissue may extend rather far up into the Eustachian tube. Obviously in these instances, larger coverage must be obtained in the dosage of irradiation. This can be accomplished by multiple sources of radium or by multiple applications as has been done in the past, but it is in such circumstances that treatment by x-ray is indicated and will usually give better results. With proper technic, fairly uniform dosage to all the involved tissues can be obtained with beneficial effects on the infection present and satisfactory shrinkage of the lymphoid tissue. The dosage required is relatively small and no harmful or unpleasant side effects need be encountered.

X-ray treatment in these conditions is not new. As early as 1924, Dr. W. Warner Watkins published a paper dealing with the pathological basis for such treatment.¹ It is to be expected that comparable results can be obtained with either form of irradiation so long as the basic principles governing the selection of the proper form are observed. As in all therapy, one should

try to fit the treatment to the individual patient and not try to fit the patient to a single technic of treatment.

PRINCIPLES OF EARLY MANAGEMENT OF HAND INJURIES

I. PROTECTION OF THE HAND

Following injury, the hand is particularly susceptible to the development of complications leading to serious disabilities. For this reason it is important that the freshly injured hand be given the most careful protection against such complications as result from added infection, additional tissue damage and stiffening.

The principles governing the provision of this protection may be briefly stated as follows:

1—Protection against added infection

Any open accidental wound of the hand may be assumed to be contaminated. It is important that no additional infection be added. This requires

- a. Protection of the wound at once with a sterile dressing.
- b. Avoidance of putting anything into the wound, such as instruments, gauze, appli-

¹ J.A.M.A., Volume 83:1305. October 25, 1924.

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cators, sponges or any sort of antiseptic.

- c. If any cleansing of the areas around the covered wound is done, it should be with soap and water only.
- d. Avoidance of all efforts at treatment of the wound by exploration, debridement or repair of damaged structures until adequate facilities are available. Adequate facilities for this purpose should include a location where surgically aseptic technic is employed, adequate anesthesia, proper instruments, sufficient assistance, good lighting and the provision of a bloodless operative field.
- e. Application of a sterile dressing which will protect against the entrance of foreign material. Such a dressing should be voluminous, firmly applied with moderate pressure, separating the fingers from each other, and should maintain the hand and fingers in the position of function.
- f. Antibiotic drugs should be administered systematically, not locally, in full dosage. Tetanus antitoxin (or toxoid) should be administered when the conditions warrant.

2—Protection against added tissue damage and deformity

Immobilization of the hand is required in any major injury, whether the wound involves skin, tendons, nerves, joints or bones. Immobilization should be governed by the following principles:


- a. Immobilization should be employed as soon as possible after receipt of the injury for protection from further tissue damage.
- b. Following definitive treatment of the injury, the immobilization should be continued as long as may be required for healing to occur.
- c. Immobilization should be in the position of function (position of grasp) in order to maintain optimum relation of bone fragments and of soft tissue structures.
- d. The position of function in immobilization is necessary to prevent disabling deformities, contractures, muscle weakness and joint stiffening, and to insure the earliest return of usefulness after healing.
- e. Flat splinting of the hand or any of its digits must be avoided at all times.

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James E. Drane, M. D.

James Erasmus Drane was born August 18, 1872 at Blackburn, Missouri and passed away on December 24, 1947 at Phoenix, Arizona. Cause of death was a cerebral hemorrhage. His father was James Erasmus Drane and his mother Mary Shaw Drane. He is survived by his wife, Edith Abell Drane, and a daughter, Jean Drane Wilkinson (Mrs. Frank M.). He was preceded in death a few months by his only son, James Lawrence Drane.

Dr. Drane received his degree in medicine from the University Medical College, Kansas City, Missouri in 1896. He did special work at Cook County Hospital, Chicago, Illinois in 1898, 1903, and at the Good Samaritan Hospital, Los Angeles, in 1935. He practiced at Mesa, Arizona from 1896 to 1923 and at Phoenix from 1893 until the time of his death, being in active practice until the day he was stricken. He was an Assistant Surgeon of the Southern Pacific R. R., 1923-1947.

Attesting to his interest in medical and civic affairs were his memberships with the Maricopa County Medical Society, the Arizona Medical Association and the American Medical Association. He was president of the Maricopa Medical Society in 1926. He was a member of the staff of St. Joseph's, Good Samaritan and St. Monica hospitals in Phoenix. His religious affiliation was with the Episcopal Church. He held mem-

bership in the Arizona Club, Phoenix Exchange Club, Executives Club and was a charter member of the Masonic Lodge of Mesa, Arizona.

Last October, the Maricopa County Medical Society honored him with a special dinner in recognition of his 51 years in the practice of medicine, a fitting testimony of their deep affection and regard for him.

The passing of Dr. Drane is keenly felt by his family, and a host of friends among his patients and medical associates. The strength of his cheerful personality and professional skill will long be felt in the community.



Samuel Hume Watson, M. D.

Samuel Hume Watson was born March 15, 1877 at Vinto, Iowa and passed away at Tucson, Arizona on February 5, 1948. He was the son of the late Peter W. and Blanch V. Hughes Watson. He is survived by his wife, Mrs. Jane Shreeves Watson, whom he married in 1906 at Blairstown, Iowa where he was engaged in practice.

Dr. Watson received his degree in medicine from Rush Medical College in 1899 and pursued an active career as a physician and surgeon for 48 consecutive years. He held office in many national and local organizations and was the author of many brochures on his specialty and of articles published in medical journals. He came west suffering from tuberculosis, arriving in Tucson in 1911, and completely recovered his

health, later specializing in the treatment of the disease which sent him westward. In 1918 he formed a partnership with Dr. Meade Clyne. The late Dr. Chas. S. Kibler later joined the firm known as The Tucson Clinic, now staffed by several other physicians.

From 1912 until 1918, Dr. Watson served as medical director of the Tucson Arizona Sanatorium. Throughout the years he has been a member of the medical staff at St. Mary's hospital and sanatorium, and physician in chief of Barfield's sanatorium, St. Luke's In-the-Desert, and at Anson's Rest Home. He has been a member of the American Medical Association since 1900, and a Fellow of the American College of Physicians since 1915. Dr. Watson was president of the Arizona State Medical Association 1928-1929, and of the Anti-Tuberculosis Association in 1916. He was a continuous member of the Pima Society from 1911 and served as its Vice President in 1916 and its president in 1918. He also maintained membership in the Southwestern Medical Association. His outstanding contributions to medicine were in the fields of allergy and intestinal tuberculosis.

Dr. Watson also maintained a civic interest which endeared him to his community. He was a member of the Tucson Country Club, the Old Pueblo Club, The Elks, and various Masonic orders.

The medical profession has lost a beloved and respected confrere and the community a friend and builder.

AMERICAN COLLEGE OF SURGEONS

To the Members of the Regional Fracture Committees:

The following statement was unanimously adopted at the annual meeting of the American Society for Surgery of the Hand in January, 1948.

"The American Society for Surgery of the Hand, founded in 1946, states in part as the second article of its constitution: 'The object of the Society shall be to increase and extend as widely as possible our knowledge of the hand and its surgical treatment'

"Such injuries, occurring frequently as emergencies in homes, industrial plants and highway accidents, are usually first treated by general practitioners or in the emergency departments of hospitals and industrial clinics.

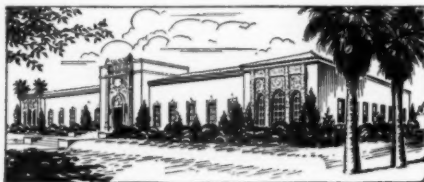
"It is of importance, therefore, that correct principles of early treatment should be established and that knowledge of them should be disseminated as widely as possible among the profession at large.

"The American Society for Surgery of the Hand expresses the hope that the American College of Surgeons will consider favorably the inclusion of injuries of the hand as a subject of specific interest in the program of education and investigation carried on by its Committee on Fractures and Other Trauma and its Regional Committees. The American Society for Surgery of the Hand stands in readiness to cooperate fully in the pursuit of such an objective and to furnish such information and recommendation

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on the subject as the American College of Surgeons may desire."

This action was reported at the annual executive session of the Committee on Fractures and Other Trauma of the American College of Surgeons, February 1, 1948 in Toronto. It was voted that the American Society for Surgery of the Hand be asked to prepare material for the Committee and that this be submitted to the members of the Regional Fracture Committees with the request that they publicize it to the general medical profession as widely as possible.

The presentation of Principles of Early Management of Hand Injuries is being prepared by the American Society for Surgery of the Hand and will be submitted in several sections at intervals. The first of these on General Principles of Protection is enclosed herewith.

Please constitute yourself a committee of one to see that this is given every possible means of publicity in your State. It should be read at the monthly conference of every hospital. It should be called to the attention of all emergency rooms, whether in hospitals or industry. Its publication in State Medical Journals will bring it to the eyes of general practitioners who would not learn of it otherwise. You will think of other ways to carry this message widely.

Injuries to the hand are all too often given poor early treatment. The results are tragic. We ask your help in this problem.

ROBERT H. KENNEDY, M. D.
Chairman, Committee on
Fractures and Other Traumas

AMA'S LAWRENCE IN WASHINGTON

Late in January, hearings were resumed by the Senate Subcommittee on Health and Education on the Wagner-Murray-Dingell bill (S. 132) and the so-called Taft National Health Act of 1947 (S. 545). Mr. Isidore S. Falk, Director of the Bureau of Research and Statistics of the Social Security Administration, who had just begun his testimony when the Subcommittee abruptly adjourned last February, was the first witness. He was followed by his associate, Wilbur Cohen; Marjorie Shearon, adviser to the Subcommittee's Senator Forest C. Donnell; Dr. Maurice Friedman of Washington, and others. Except for Senators Donnell, H. Alexander Smith of New Jersey, Chairman, and James E. Murray of Montana, members of the Subcommittee showed little interest in the proceedings.

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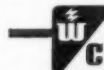
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Occasionally, Senator Claude Pepper of Florida would drop in. He livened things up a bit by taking sharp issue with his Republican colleagues or by directing pointed questions at witnesses. But usually Senators Smith, Donnell and Murray carried on alone.

The small hearing room was seldom filled with spectators. However, there were a number of regular attendants, the majority of them representing organizations. Those opposed to S. 1320 and more or less in favor of S. 545 represented medical groups. They, like those who took the opposite view, had become familiar figures at the hearings. Among the former were representatives of AAPS (American Association of Physicians and Surgeons), NPC (National Physicians Committee), and UPHL (United Public Health League). Of course, the AMA was represented by Dr. Joseph S. Lawrence, Director of the Washington Office of the Council on Medical Service. As he is the subject of these observations his will be the only name mentioned of those who represent medicine in Washington.

"Joe" Lawrence, as he is known to his intimates, deserves some nice things said about him.

He is, of course, the dean of medical representatives in Washington, having 24 years of legislative experience to his credit. Unlike many men long in service, his interest and enthusiasm have not been dulled. Few are more youthful in their outlook. He is forever seeking new facts or learning from others who possess information he doesn't have. What is most pleasing to those who are closely associated with him is that he wears well. He grows in stature as one gets to know him better.

Common sense and tolerance are very important attributes when discussing medical problems with public officials. For many of them do not see eye to eye with organized medicine. Some are openly hostile to the position it takes. Dr. Lawrence has shown the proper regard for their views, and his discussions with them are friendly and frank. Sometimes they come around to his point of view. But whether they do or not, he earns their respect.

From time to time, criticism has been leveled at Dr. Lawrence because he is not aggressive enough. Physicians should not be deluded by such reports because Dr. Lawrence knows, as does any informed person in Washington, that

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he will accomplish little by being a belligerent advocate. Crusaders may cry to high heaven and raise a great rumpus, as some have done, but all they accomplish is to strengthen the resolve of their opponents. Dr. Lawrence goes about his task in a calm and quiet manner, making known the views of the AMA and the reasons therefor. As has been said, he may not win the support of the officials with whom he talks, but at least he earns their friendly regard, which may prove very valuable.

Your Observer, in common with some others, had misgivings when Dr. Lawrence first came to Washington. But these have been dissipated by his sound judgment and patience. Many men would have been tempted to throw in the sponge if they had run into some of the difficulties which confronted him. Fortunately, he took them in stride. Today, he is in a better position than any other representative of the medical profession in Washington to serve effectively.

The legislative bulletin issued by the Washington Office typifies Dr. Lawrence. It is dignified, informative, and well edited. There is no flamboyance or hurling of thunderbolts. Stated in a readable manner are the facts, which speak for themselves.

From all of this, it should be apparent that your Observer considers Dr. Lawrence a worthy and effective representative of the American Medical Association in the Nation's Capital.

Reprinted from "In and Out of Focus, by The Observer," Medical Annals of the District of Columbia.

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THE AMERICAN MEDICAL ASSOCIATION SAYS PUBLIC DEMAND FOR SERVICE AT NIGHT MUST BE MET

The American Medical Association calls on county medical societies to meet the public demand for emergency medical service at night.

"From many sections of the United States," says an editorial in a recent (March 6) issue of The American Medical Association, "complaints have come lately that persons who have called physicians late at night have been unable to secure attendance from either those whom they considered their family physicians or from specialists or, indeed, from any physician."

The American Medical Association says that large county medical societies or urban groups should maintain a physicians' telephone exchange which would take the responsibility for locating physicians if response is not made to the ringing of the telephone in the home or in the office.

The solution is simple and practical, requiring only a minimum of community organization. A number of county medical societies already maintain a physicians' telephone exchange where doctors' calls may be received and doc-

tors located if their office or home telephones do not respond. Such an exchange can be utilized as at night or on holidays, simply by furnishing the exchange with a list of physicians who are able and willing to make night calls. Such physicians would probably include the younger general practitioners, newcomers to the community, and others in general practice. If such a roster were available, and its availability widely publicized, night calls for medical service would soon gravitate to this center and the patient would be assured the services of a physician.

Under such a system the necessity for calling many doctors would be eliminated. Two calls at most would be necessary. Where there is no physicians' telephone service, it might be possible to have the hospitals cooperate by handling such night calls.

The Medical Society of the District of Columbia and the Milwaukee County Medical Society have found such a plan practical, as have a number of other societies.

By this simple and practical expedient, which is doubtless in effect in modified form in a number of communities, the sick can be served



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and the medical profession can redeem its pledge of unselfish public service.

It is highly important that where such arrangements exist they be brought to the attention of the lay people in the community through appropriate public channels, not once but repeatedly, to keep the shifting populations well informed.

Few problems in the field of medical service have aroused so much public discussion. Whether resentment against physicians is justified or not, it does harm. The solution for this problem is so eminently simple and would reflect so favorably upon physician-patient relationships that medical societies everywhere are urged to give it serious consideration immediately.

Emergency Calls

Oppositionists to the American Form of Medicine not infrequently try to prove their false claim of inadequate medical care . . . by publicizing isolated instances of sudden death. Almost invariably they say either that a physician could not be procured or that a physician refused to come.

Over a period of many years the Censors of this Society have investigated each and every one of these claims, as rare as they have been, that have come to their knowledge. Three times they have found that the deceased were chronic alcoholics who had made life miserable not only for their families, their family physicians, but their neighborhood physicians as well and then had finally tipped . . . toppled . . . and failed to bounce in the proverbial manner of drunks and babies. Summary: They were put to bed and left to sleep it off as usual only this time the pitcher had gone to the well once too often. Diagnosis: Fractured skulls, fractured necks with acute and chronic alcoholism. Result: Exit. The old story of the little boy who cried "Wolf."

On one occasion a man sat in his apartment reading his paper. He slumped over. His wife ran next door to their neighbor whom she knew to be a Professor in one of the large teaching centers. She arrived at his apartment breathless. He tried to explain to the excited lady that he was a research ophthalmologist, that he did not even practice ophthalmology, he was merely a student of the physiology of the eye.

(Continued on Page 97)

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(Continued from Page 94)

Finally, he gave in and went next door with her. The man was dead. The wife was certain that if he had come immediately her husband might have been saved. She was equally certain that he had delayed ten minutes with her; actually it hadn't been more than two . . . and after all . . . wasn't he a professor in a medical school? In her mind he could have saved her husband.

Therefore, the Censors of the Society requested the Committee on Public Relations to survey this situation for its actual worth and the results of this survey are as follows:

1. The cause of emergency calls ranges all the way from "A" for abactio to "Z" for Zelotypia . . . but 67% of all emergency calls are the result of some form of hysteria.
2. Where emergency calls result from sudden calamity . . . such as cerebral hemorrhage, coronary thrombosis, etc. . . . 96% of the end results are determined not by medical intervention but by the degree of the immediate trauma.

3. In cases of accidental trauma such as lacerations, fractures, etc., common knowledge of first aid plus immediate skilled medical attention is largely the determining factor.

After concluding this survey, which covers more than one hundred practicing physicians in the city of New York, with an average length of practice of twelve and one-half years and all economic and racial groups we must conclude—

1. The Public Relations, not only of the New York County Medical Society, but those of every practitioner of the healing art remain where they have always been, not in the hands of this Committee but in the hands of each individual practitioner. Each of us wears the title of "Doctor," meaning "Learned." Ours is the badge of distinction that in itself with our very presence lends ease to that infathomable ache which our survey clearly reveals causes 67% of all emergency calls.

2. Even if the 96% in the second group are not influenced by immediate medical attention . . . the mere presence of one stamped with the seal of authority does more for the four freedoms of all involved than any charter.



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3. The third group needs no explanations. Therefore, with all explanations to the contrary . . . we must continue to regard emergency calls as part of the price of leadership . . . part of the price we pay . . . another part of the class tax that we have always paid and will always pay . . . regardless of the system of medical practice that may be followed. Specialists cannot hold aloof. General practitioners

cannot be too busy. Nothing short of physical disability should excuse one from a humanitarian duty as a good neighbor. Neighborliness cannot be legislated into existence. Rare as these instances are, one case reaching the public press would create a false impression as to their infrequency and counteract the vast number of times that doctors have responded."

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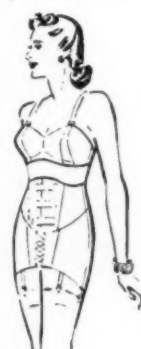
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National Emergency Medical Service

MEMORANDUM I

Report of Spring Session of Council

(American Medical Association, April 5 and 6, 1948)

TO: State Medical Society Secretaries and State Journal Editors

FROM: Council on National Emergency Medical Service

SUBJECT: (1) Organization of State Medical Training Program

(2) Physicians and the Universal Military Training Program

(3) Articles in State Journals

Defense of America in any all-out national emergency will depend upon strong state organizations. In atomic, chemical and bacterial warfare, the burden will fall largely on our industrial centers. It is, therefore, necessary that medical facilities and personnel must be prepared to meet any attack. These facts were developed at the Spring Conference of the Council on National Emergency Medical Service which was held at the American Medical Association April

5 and 6, attended by fifty-one representatives from forty-one states.

(1) *Organization of State Committees.* With this in mind the conference passed the following recommendation, asking for the immediate organization of state committees to work with the Council on National Emergency Medical Service. If such a committee has been formed in your state we would appreciate having the official name of the committee and its personnel.

"WHEREAS, the medical profession is presently confronted with great and growing problems relating to National Defense; and

"WHEREAS, both the planning and implementation of programs to meet those problems in many instances reach down to state and local community levels, therefore be it

"RESOLVED, that the Council on National Emergency Medical Service call upon the state, territorial and district component societies of the American Medical Association to activate at once a committee of proper designation and direction to work with and under the guidance of this Council in its program to meet those problems, and further be it

(Continued on Page 101)

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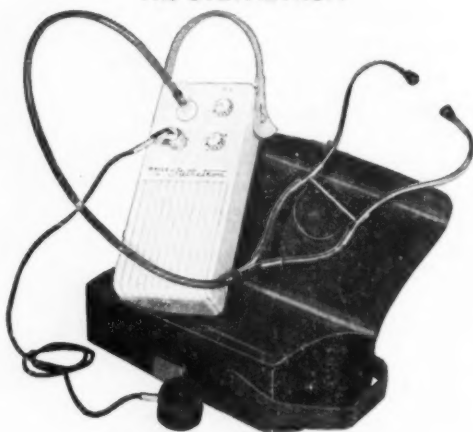
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(Continued from Page 99)

"REQUESTED, that each state, territorial and district society submit to this Council the personnel and terms of reference of such committee promptly upon its appointment."

The first duty of this committee will be to stimulate local governmental agencies to organize a medical relief program in case of a national emergency.

Requests already have been sent from the Council's office to the governor of each state asking for information in regard to each State's disaster service. We would suggest that if contact with the governor of your state has not been made already concerning such a survey from the medical standpoint, that this be done.

(2) *Physicians and the Universal Military Training Program.* Enclosed is a statement of the A. M. A. "on a proposal to induct physicians as such in connection with the contemplated revival of the Selective Service Training Program." Mr. J. W. Holloway, Jr., Director of the Bureau of Legal Medicine and Legislation of the American Medical Association on April 9 sent a special telegram* to the Secretary or Executive Secretary of each state medical society in regard to the legislation to be introduced in Congress authorizing special calls for physicians, dentists and veterinarians up to forty-five years of age. This telegram, also enclosed, expressed the strong opposition of this proposal by the Council on National Emergency Medical Service and the Executive Committee of the Board of

(Continued on Page 103)

*TELEGRAM: "Preliminary prints of legislation yet to be introduced to reactivate selective service will authorize special calls for physicians, dentists and veterinarians up to forty-five years of age. Council on National Emergency Medical Service has expressed strong opposition to this proposal on the ground that it is unnecessary in view of record of medicine in World War II in supplying needed medical personnel, that it is discriminatory in that the other needed scientific and technical personnel is not subject to similar call and that it reflects on patriotism of physicians by inferring they will not respond to an emergency. The Executive Committee of Board of Trustees has reaffirmed this opposition. Suggest you transmit views of your Association without delay to Senate Committee on Armed Services, Senator Chan Gurney, Chairman, to House Committee on Armed Services, Congressman Walter G. Andrews, Chairman, and to your senators and Congressmen. Urgent.

J. W. Holloway, Jr.,
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(Continued from Page 101)

Trustees. Hearings on the Universal Military Training Act are now being held in Washington. Representatives of the Council have appeared at several of these Congressional hearings. James C. Sargent M. D., has been selected by the Board of Trustees to present the official A.M.A. policy on the legislation being considered by the House of Representatives Committee on Armed Services in Washington April 23. A copy of his official statement will be mailed to you as soon as available.

(3) *Articles in State Journals.* We suggest that information in regard to the Spring Conference and the actions taken in regard to the program as it is being developed by the Council be carried in each state journal.

Enclosed are four News Releases distributed during the Conference which may be helpful in preparing these articles.

(4) *Additional Resolutions.* Other resolutions passed by the Council will be mailed later. These are yet to be approved by the Board of Trustees.

James C. Sargent, M. D.
Chairman
Richard L. Meiling, M. D.
Secretary

STATEMENT

Of The American Medical Association on a Proposal to Induct Physicians as Such in Connection with the Contemplated Revival of the Selective Training Program

Preliminary prints of a Senate bill to provide for the Common Defense by Increasing the Strength of the Armed Forces of the United States, and to provide for a Universal-Training Program contain a section which would authorize the President, pursuant to requisitions submitted by the armed forces, to make special calls for members of the medical, dental and veterinary professions, who have not yet reached the age of forty-five at the time of such call, in such classifications and in accordance with such priorities as he shall determine. Persons so called will be liable for induction for service in the armed forces in accordance with such procedures as the President shall prescribe.

Such provision is unnecessary, discriminatory and constitutes a reflection on the patriotism of

(Continued on Page 105)



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(Continued from Page 103)

the medical, dental and veterinary professions. Confining this statement to the proposed induction of physicians, it is strongly urged that during World War II, the medical profession met every demand for medical personnel without compulsion by law. It will do so again if the need arises. The provision is therefore unnecessary and infers that in the case of urgency the medical profession will not respond to the needs of the armed services. It would seem to be predicated on a lack of faith in the patriotism of members of the profession. There is nothing in the history of American medicine to warrant such an inference.

If a revival of the selective service program is made effective, there will arise a need for scientific and technical personnel, other than the three groups specifically mentioned, who are above the age limits to be applied to selectees generally. Until provision is made for the induction of such other personnel, it is discriminatory to single out physicians, dentists and veterinarians and subject them to compulsory induction.

(Continued on Page 107)

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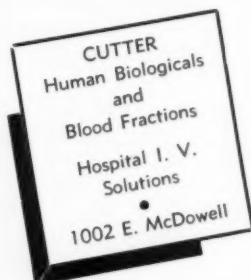
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(Continued from Page 105)

The association, through its Council on National Emergency Medical Service has been actively engaged for many months in planning for the medical, health and sanitary needs of the nation in event of a national emergency. At a meeting held in Chicago, Tuesday, April 6, the Council gave careful consideration to the present proposal to induct physicians by law into the armed services. Resolutions were adopted embodying in substance the objections to the proposal summarized in this statement. These objections have since been reaffirmed by the Executive Committee of the Board of Trustees which has authorized this statement.

It is urged, therefore, that the provision under which physicians may be inducted as such by compulsion of law be eliminated from proposed legislation to revive selective service.

NATIONAL EMERGENCY

Chicago, April 6.—For two days the representatives of the 48 State Medical Societies and 14 allied professional National Associations (dentists, veterinarians, nurses, hospital administrators, etc.) have heard the nation's most qualified medical experts discuss the problems of providing adequate medical, health and sanitary services for the civilian population, industry, agriculture and the armed forces in time of national emergency.

Medical men daily face on a small or large scale the catastrophic results of flood, fires, explosions, epidemics, unknown diseases, and uncontrollable infections, striving scientifically to care for the patients and develop effective protective and treatment procedures. The problem facing the medical men when unorthodox weapons of war (such as the atom bomb) are employed are resolvable in the same calm scientific medical manner.

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lian population, industry and agriculture as well as for the armed forces, for total war knows no differentiation.

In the light of the experience of those countries suffering the effects of serious bombing during the last war and giving heed to the threat of the atom bomb, the need of planning adequately for the medical health and sanitary care of the civilian population becomes a matter of first magnitude since the very life of the nation may hinge upon it. It would be completely unsafe and a serious threat to our national war effort to needlessly lower the ratio of physicians to civil population anything like that of the 1 to 1500 ratio reached during the recent war.

Each of the 48 State Medical Associations has been requested to make available qualified medical advisors to the Governor and the State Disaster Service of their respective States.

A qualified medical representative of the American Medical Association has been requested for the National Civil Defense Program by Colonel Barnet W. Beers, Executive Assistant of the Director of Civil Defense, in planning adequate medical, health and sanitary services. The 48 State Medical Associations have been advised to provide similar representatives at the State and local level of Civil Defense.

The common problems of the medical and allied professional groups as related to National Defense will be the basis for cooperative effort and planning of the American Medical Association and the National Groups of the allied professions. Their interest lies primarily in the supply of adequate medical care and treatment of sick and injured people, be they civilian or military.

The Department of Army, Department of Navy and Department of Air Force have requested the aid and considered medical advice of the American Medical Association in planning medical services for the current expansion of the Armed Forces and the possible contingencies in case of a declared national emergency.

It is therefore suggested that some system of priority be established to regulate the "call up" of medical officers.

The limited and highly essential medical resources of our nation must be conserved and intelligently distributed. Considered medical opinion advises that:

- (a) One medical examination be developed, acceptable to the Selective Service and

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the Armed Forces for the screening, induction and assignment of selectees to military services.

- (b) Medical officers should not be "called up" until actual employment for medical care of patients is required. Air travel or rapid surface facilities should be currently allocated for movement of medical personnel and facilities to critical areas. Medical pools must be eliminated because of the waste of essential medical manpower and the demoralizing effect of these pools on highly technical skilled personnel.
- (c) The proven medical program of the Veterans Administration whereby staffs of Veterans Administration facilities for the care and treatment of veteran patients should be considered in principle and then applied by the Armed Forces in their relation with the civilian medical facilities and personnel within continental United States. This means liberal inter-change and use of available medical facilities and personnel of the Army, Navy, Air Force, Veterans Administration and Public Health Service.
- (d) To assure cooperative effort in such a coordinated medical program it is essential that civilian components be given equal representation in the highest grades (Admirals, Generals) of the Armed Forces with the members of the regular service.
- (e) Medical scientific education and essential civilian medical and scientific research

(Continued on Page 111)

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(Continued from Page 109)

must be continued throughout a national emergency if our nation is to live and continue its growth in the years following cessation of a national emergency.

- (f) The Department of Army, Department of Navy, Department of Air Force have suggested that the Executive Branch of our government establish a National Emergency Medical Board as an agency of the National Security Resources Board, and that the American Medical Association be represented on this Medical Board. The Council on National Emergency Medical Service believes this suggestion on the part of the Armed Forces is medically sound and a national requirement to provide intelligent planning of medical health and sanitary services required in a coordinated mobilization of the civilian population, industry and the armed forces in time of national emergency.

A. M. A. POLICY ON H. R. BILL 6274

By James C. Sargent, M. D.

Washington, D. C., Apr. 23—The greatest challenge confronting Congress and the medical profession today is "the proper and adequate provision for the care of the great number of horrible civilian casualties that are promised if World War III is to come."

This statement was made today by Dr. James C. Sargent, Milwaukee, before the Armed Services Committee of the House of Representatives in expressing opposition to parts of Section 4 of H. R. bill No. 6274. This bill as now worded would authorize the President, pursuant to requisitions submitted by the armed forces, to draft physicians above the age of 25 stipulated as basic in the proposed law.

"To give to the Military Establishment carte blanc as this bill proposes to do, would surely lead to the same over procurement of medical personnel as before," Dr. Sargent said. "And if another war is to come—biologic and atomic warfare this time—large disaster areas with terrible civilian casualties must be expected and must be adequately provided for if the Nation is to survive.

"Ordinary civilian pursuits, agriculture and especially industry—the very foundations of our

national war strength—will never survive the high casualties in store for them in another war if civilian doctors are to be thinned down again to the one to 1,500 ratio that was reached during the last war.

"The special provisions in Section 4 (c) and (d) of H. R. 6274 set the pattern for just such an unsafe distribution of physicians and set the stage for just such a national catastrophe."

Dr. Sargent is chairman of the American Medical Association's Council on National Emergency Medical Service. With but one exception, eight of the nine members of the Council, including Dr. Sargent, served in the Armed Forces during the recent war. The other member served as one of the five directors of the Procurement and Assignment Service, the agency through which 60,000 civilian physicians were recruited during World War II.

The Armed Services Committee of the House of Representatives were told that a survey made by a special committee of the A. M. A. of some 50,000 doctors revealed:

1. There were far more civilian physicians procured for the armed services during World War II than were effectively needed or used.

2. The subtraction of this large group of physicians from the civilian population left a shortage that was dangerously acute and sorely noticed despite the remarkably healthy state of the nation throughout the war years.

"A national tragedy would surely have occurred had we experienced an influenza epidemic like that following World War I or had we suffered civilian war casualties such as the bombed countries of Europe experienced in World War II," Dr. Sargent said.

The Council chairman added that "if the nation is to survive another war there can be no brooking the waste of medical talent that prevailed in the Army, Navy and Air Force throughout the war just passed." Happily, he said, the Military Establishment, from the Secretary of Defense down, is working toward far better use of the medical personnel and facilities of the three services.

The studied belief of the Council on National Emergency Medical Service and the Board of Trustees of the American Medical Association.

stated Dr. Sargent, is that a special provision in the law for the drafting of doctors is "both unnecessary and unwise."

"Because of the accelerated program of medical education carried on during the war years, doctors are graduating today well under the age of 26. Through this circumstance, doctors made available under the general draft provisions of H. R. 6274 would be wholly adequate to meet the numerical requirements of medical officer personnel for the increased strength of the armed forces authorized in the bill."

The point is raised, and properly so, that this would furnish only young, recently graduated physicians. That there is need for some older physicians of special talent is obvious. Such need cannot be great, however, considering the fact that this bill provides for a peace time expansion of the armed forces that does not contemplate heavy casualties of war and, important to note, provides for the medical care of young men in the prime of life and hand-picked for their physical fitness.

"There are other ways, less onerous than this proposed legislation, to provide the expert services of experienced physicians and surgeons needed for the expanding Army, Navy and Air Force. The Veterans Administration has pioneered in the use of highly skilled specialists in civilian practice as part-time consultants and the unprecedented excellence of the care that is being given veterans today under such a system merits the serious notice of the Military Establishment.

"Today each city of size in America holds able and thoroughly experienced specialists of every category who are not too deeply rooted to consider rejoining the military as a career were such service made somewhat more attractive. But they recall the barrier that age placed against obtaining rank and pay that was commensurate with their exceptional talents. And they recall the withering experience of long periods of inactivity and of non-medical duties."

Doctors, both in and out of service must have clinical medical work to challenge their abilities and keep them professionally alive. While there are certain real inducements to attract able medical talent to a career in military medicine they simply are not enough. Purely administrative changes, dealing with rank and duty assignment, could and would over night minimize the medi-

cal personnel problems that so concern the armed services today.

"And in the end, if neither of those means are to be employed and experience proves that soldiers and sailors are in need of medical care the profession of America will see they get it, draft or no draft. They did it handsomely in the last war, as, indeed, they always had before. And they would do it again."

NEWS NOTES

AMERICAN COLLEGE OF CHEST PHYSICIANS

The BOARD OF EXAMINERS of the American College of Chest Physicians announces that the next oral and written examinations for Fellowship will be held at Chicago, June 17, 1948. Candidates for Fellowship in the College, who would like to take the examinations, should contact the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The FOURTEENTH ANNUAL MEETING of the American College of Chest Physicians will be held at the Congress Hotel, Chicago, Illinois, June 17-20, 1948. An interesting scientific program has been arranged for this meeting, and speakers from several other countries are scheduled to appear.

Thank you for your cooperation.

Murray Kornfeld,
Executive Secretary.

A new 1948 catalog of technical books has just been issued by The Chemical Publishing Co., Inc., 26 Court Street, Brooklyn 2, N. Y. This catalog includes the latest books on chemistry, physics, science, technology, petroleum, medicine, foods, formularies, drugs and cosmetics, engineering, metals, technical dictionaries, building construction, etc.

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ALL MEMBERS INVITED TO CANCER SOCIETY LUNCHEON

Dr. E. Payne Palmer, Sr., on behalf of the Arizona Division of the American Cancer Society, extends a cordial invitation to all members of the Arizona State Medical Association to attend a luncheon at 12:00 Noon, May 18, 1948 in the Continental Room of Hotel Westward Ho, honoring Dr. Charles S. Cameron, Acting Medical and Scientific Director of the American Cancer Society and Dr. E. Cuyler Hammond, Director, Statistical Research Department of the American Cancer Society.

The Cancer Society hopes that all physicians will attend as its guests. Please make your reservations not later than May tenth through Dr. E. Payne Palmer, Sr., Chairman of the Executive Board of the Arizona Division of the American Cancer Society, 611 Professional Building, Phoenix, Arizona.

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